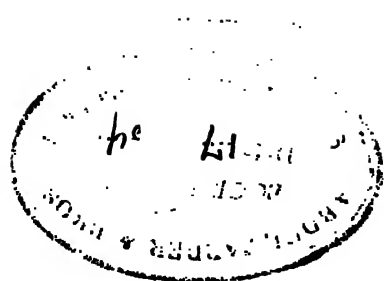


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PEERING INTO THE FUTURE

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AUTUMN

By thy wave I linger,
Silent stream,
Autumn's golden finger
Paints thy dream.

From the beeches falling
Down thy face,
Summer past recalling
Drifts apace.

Only mists rise stilly,
A sad peace !
Damp earth yields no lily,
Roses cease.

Here where I sank lazy
Deep in grass,
No surviving daisy
Tells what was.

Kingcup blaze of meadow,
Cuckoo-call,
Is it all a shadow
I recall ?

Yet when down these reaches,
Nipt with cold
Scarce the wintry hedges
Durst be bold.

Windy magic struck us,
March's rod.
Like sunbeams the crocus
Burst the sod.

And when April after
Showered the ground,
Daffodils in laughter
Danced around.

O the crimson story,
White and red !
May-blossoms in glory,
'Too soon shed !

Scarcely May-time closes
Burning June
Brings me her musk roses
And her moon.

Blue skies to embolden
Hot July
Amid cornfields golden
Oped an eye.

Last for fancy's yearning
Thought to save,
Her frail poppy burning
August gave.

Springtime's lovely story,
Summer's dream,
Where is gone the glory,
Silent stream ?

Calm thy current flowing
Ripples on,
Pang nor memory showing
Of what's gone.

Canst thou unregretful
Silent glide,
For no loved flower fretful,
Flowers that died,

For no sweet bird caring,
Birds that sang
Lost musicians, faring
With no pang ?

Thou the present only
Car'st to glass,
Feel'st nor reft nor lonely
For what was.

Art thou, solemn river
Letho stream,
That there comes no shiver
O'er thy dream ?

Memory's sunken anchor
Yearns my heart,
Rusts and rusts to hanker,
Grieves to part.

Gorgeous, tristful tender
Autumn sighs,
Grieving to surrender
Pomp that dies.

Autumn melancholy
Mourns with me
Summer's spendthrift folly,
Springtime's glee.

Gone are all the glories !
Autumn, speak,
Where for what no more is
Shall we seek ?

Now with falling splendour
Every leaf
Fills the heart with tender
Wistful grief.

Now with mists September
Mournful is,
Sadly to remember
July's kiss.

M. GHOSE

ANCIENT INDIA

My first words must be words of thanks to the University of Calcutta, which has been so good as to confer on me the degree of Doctor, and—in association with the Viśva-Bhārati of Śantiniketan—to summon me from a distant country as a visitor, a guest, and a colleague among colleagues. I deem it one of the highest privileges of my life that these two invitations were extended to me through the instrumentality of Sir Asutosh Mukherjee and Rabindranath Tagore, the two most efficient makers of this new India which no one could foresee when I first came here, one quarter of a century ago. It has been said that countries abroad are an anticipation of posterity; then I have some right to state that the names of these two great men, united in the same work, will live in the memory of men—whatever may be their other merits—as two *Śakakartṛis*, starters of a new era full of hope and promise.

Now thirty-nine years have elapsed since I devoted myself to the study of the past of India; I have given to these researches, with an enthusiasm which has never diminished, the best of my time and my endeavours; in the solitude of the study I have wrestled to save names, deeds, joys, sorrows from the oblivion threatening to overcome them; I have shared sincerely with the men of times gone by those vicissitudes of grandeur and suffering which have been, in all the course of time, the lot of the human race. I had but one ambition: to serve science, and by serving science to serve the truth. The chair at the Collège de France to which I was called by the Republic had seemed to me the finest and loftiest reward. I had never dared to hope that I might come some day, at the express invitation of two Indian Universities, to address an

¹ Lecture delivered at the Calcutta University, by Prof. Sylvain Levi, D.Litt., on the 15th August, 1922.

audience of Indian students about questions of Indian history. Still I had read in one of your poets :

द्वीपादन्यस्मादपि मध्यादपि जलनिधेर् दिगोऽप्यन्तात् ।

आनीय भटिति घटयति विधिर् अभिमतम् अभिसुखीभूतः ॥

Ratnāvalī, I, Prolog.

“Even from another continent, even from the midst of the ocean, even from the end of the world, suddenly the kindness of destiny brings you your happiness.”

The poets are prophets. But the poet Harṣa from whom I have borrowed this verse—a verse as elegant as it is judicious,—was not a mere dreamer. Sovereign of a great empire that extended over the whole of Hindustan, concerned in the political life of all Asia, he knew the realities of life and his wisdom came to him by experience. Engaged in a conflict with a redoubtable adversary, King Pulikēsi who had barred his way to the Dakkhan, he had welcomed joyfully to his court the ambassadors of China as heralds of an alliance that was to secure his triumph. Beyond the barriers of India, he had had a glimpse of those manifold links which crossing one another from country to country, establish the deep-lying unity of the human race. It is this unity which our more accustomed eyes perceive clearly now-a-days in the whole domain of history, and of this unity even my presence here is, in its humble way, a symbol.

It is not simply from the need of idle amusement that there arises between men separated in appearance by language, customs, beliefs, institutions, the need to know, to understand, to draw nearer to one another. It was possible for a philosopher in the throes of pessimism to declare once: “Man is a wolf to man.” Nature, it is true, more cruel than man, seems to delight in apportioning her gifts with capricious inequality, in sowing far and wide the seeds of hatred and causes of enmity. But man is great and noble

enough to rise up against nature and bend to the service of good those very forces which seemed destined to work evil. The war that looses the fury of the present time brings about the fruitful *rapprochements* of the time to come. The Median invasions in which Greece at one moment believed that she must perish with her civilisation, her arts and her liberties, opened out to Hellenic activity a widened world. Alexander's campaign in the Panjab welded India finally together with the whole mass of countries which were soon to be covered by the one name "Roman." The history of wars, that may seem, only too easily, to sum up the whole of human history, does but mark the violent phases of a process by which humanity has come together. In the rear of the slaughtering army have come the trader, the missionary, the *savant*, the inquirer, all those agents whose anonymous work is lost to history, obscure fashioners working sometimes unwillingly and often unwittingly for a better future.

It is true that a childish prejudice tends to represent each people as the exclusive author of its own civilisation, and each single civilisation as the exclusive work of one people. Too many minds, lingering behind their time, halting at the stage of old-world humanity, believe that the barbarian countries begin at the frontier of their own native land. Think of these rudimentary maps which around the special country represented, have just a blank space, without names or signs. As if the national honour would have to suffer, should the least share of influence be accorded to neighbouring nations! The love of country, like the love of God, can degenerate into stupid fanaticism. Nothing will satisfy those afflicted with the mania of Chauvinism, but the belief that all arts, sciences, discoveries and inventions have sprung from the privileged soil that has the honour to bear them. Reality protests against this childish conception. Civilisation is a collective work in which each one labours for the advantage of all.

To go no further back in the annals of the past, which science in our days is busy in deciphering, let us glance at Greece, benefactress of the world, dispenser of beauty, wisdom and truth. There is not a people on all the face of the earth that is not her debtor. But as for her, from whom did she not borrow? She herself has admitted that she received writing from the Phœnicians, philosophy from the Egyptians, and we, whose knowledge of her past is greater than hers, we have now penetrated beneath classic Greece to come upon an Ægean civilisation steeped in Oriental influences. The doctrine of spontaneous generation thrust out from the biological sciences by the experiments of Pasteur cannot hope to find a refuge in the historical sciences.

Let no one refute this truth by the argument that we know little with certainty of the distant past; the times nearer to our own reveal this same truth to us very clearly. I will content myself with one example: French literature. In the sixteenth century it was the study of Greek and Latin models that inspired the masterpieces of the Renaissance; a little later, it was Italy that impressed upon French mind her own taste with its subtlety and affectations; next, Spain triumphed in the nervous and grandiose art of Corneille; then the work of Racine devoutly brings together Euripides and the Bible. England, mother of political liberty, takes the lead with us in the eighteenth century; after the Revolution follows the German romantic movement. And quite recently the Scandinavian drama and the Russian novel have left their impress on the French mind. Does that mean that a national genius does not exist? Far from it! On the contrary it is in this process of absorption that it manifests all its power. What indeed is national genius if it is not the harmonious blending of the tastes and tendencies of the various groups which taken all together form the nation, selecting in them those features which are most permanent, most universally humane, barring them of their narrow local or temporary fashions?

To bring a nation into existence, it is not enough to make the frontiers of territories touch one another, to subdue them to the sole authority of a common ruler ; a brutal conqueror may found an empire by such means ; his ephemeral work disappears with him. In order that a multitude of men may come together in that higher unity that constitutes a nation, that multitude must, by triumphs and by losses, have grown conscious of a profound *raison d'être* which is the sum of its experiences, its hopes and its aspirations. There is no question here of a mystical unity, but of an actual fact. Amid all those chance groupings that the caprice of history has attempted, a national consciousness has caused only those unions to endure which were real unions, sincere, normal and deep. The temporary separations, brought about by violence, only intensify, by that very trial of suffering, the clear and vivid sentiment of national unity. The mutilated country feels the blow struck at the necessary balance of its living forces. Within an organism so powerfully constituted, a common stock of thought is soon formed by the very play of the forces of life. As occasion arises and doctrines or works are submitted to the test of public opinion, agreement or disagreement finds expression and reveals a residue of general preferences which take final shape in a choice of works or ideas established thenceforward as "classic."

Thus the function of a national genius is essentially that of criticism ; creation must remain the privilege of exceptionally gifted personalities. Still, we must recognize that even in this domain of creations, society exercises its influence in some degree, since the preferences that it expresses tend to prepare beforehand a certain framework within which creative invention shall work.

Thus vanishes the antinomy that some have attempted to assert, between national genius and foreign contributions. In that perpetual movement of exchanges by which all products of human activity pass into circulation, national

genius selects with the sure judgment born of experience, that part which it deems useful to assimilate, and it eliminates the rest. It enriches its own store without alteration of its character, at least so long as it remains free to act according to its own proper taste; bound up as it is with the existence of the nation, its fate must be to disappear with the nation to which it has given self-expression. Greece conquered had been able—according to the celebrated phrase of the poet Horace—"to conquer her fierce conqueror" (*Grecia capta ferum victorem cepit*), but the Greek genius did not long survive the independence of Greece. Yet, if its productive force had vanished, a fecundating power, so to speak, persisted even in its lifeless body. And when rediscovered by the Christian West after centuries of oblivion, Greece gave her the Renaissance and changed the course of history.

India, however, to all seeming, has escaped the general law. Her traditions, preserved in the immense literature of the Brahmans, hold no precise knowledge of the world around her. Nature herself seems to have delighted in marking round about her a frontier of splendid isolation. An unbroken line of colossal mountains bars the way on the North; to the East and West a perilous Ocean bathes the inhospitable coast; between the sea and the mountains, a desert of moving land serves as a defence of the threshold lying open along the course of the Indus. One might say that some malicious divinity had wished to attempt here, in ideally favourable conditions, some experiment on humanity in a hermetically sealed vessel. Society, for its part, has set itself to aid nature in her work. It would be difficult to find elsewhere a system of institutions so resolutely planned to exclude the stranger. I need not lay stress on the originality of the caste-system. One may extol the services that it has rendered to India or pass judgment on its grave drawbacks; whatever opinion one may hold on the subject, it must be admitted that, in principle, it has raised round about India an impassable barrier. Elsewhere

it is possible to aspire to the *droit de cité*, to naturalisation; here you must resign yourself to remaining for ever outside, if chance has not automatically thrown open the door to you by right of birth. These singular conditions combined to effect the production of a type of humanity unique in its composition, and which we scarcely know how to define. India is not a unity in the ethnological sense. There is not a people that reveals so clearly as India extraordinary diversity of origin. India is not a unity in the linguistic sense, the languages of India are even more numerous than races. And yet India is not a mere geographical expression devoid of human value, determined only by the nature of the ground, by elevations and depressions.

No one can dispute the existence of an Indian civilization, characterised by the predominance of one ideal, of one doctrine, of one language, of one literature and of one social class. From the Himalaya to Ceylon cultured minds and simple souls alike believe in the same transcendental law—the “Dharma” bound up with eternal transmigration “Samsāra” and the inevitable recompense of acts from existence to existence “Karman.” Religions and philosophies agree in preaching the nothingness of the individual and the vanity, the illusion of things. Sanskrit, the language of the gods, has enjoyed a prestige for two or three milleniums. Vyāsa, Vālmīki, Kālidāsa, are unanimously held to be models of taste, of poesy and of style. The Brahmin is everywhere venerated as a sort of divinity on earth. But India is a proof of the fact that a civilisation is not enough to form a nation. A comparison with the great peoples of classic antiquity will show only too clearly what is wanting in India. And when I speak of “India” it is of ancient India that I mean to speak; I must refuse resolutely to take any part in the controversies and the passions of the present moment. The science that desires to remain faithful to the sincere worship of truth must hold aloof on those serene heights “*templa serena*,” extolled by the Latin poet—or to

borrow the language of Buddhism on "the plane of laws"—"*dharmadhātu*" where phenomena, sublimated as it were, lose these potentialities of defilement and disturbance that are by nature inherent in them. You all remember that admirable scene in *Śakuntalā* where King Duśyanta comes down again from the Paradise accompanied by Mātali in Indra's chariot. He is still thrilling with the battle just waged against the demoniac *asuras*—his heart still throbbing at the thought of the well-beloved consort whom he had refused in a moment of forgetfulness, the overwhelming tumult of passions stirring the very depths of his soul.

But the chariot in its airy flight draws near to the sacred hermitage where the ascetic Kāśyapa practises and imparts wisdom; and suddenly the king is aware of an inward peace that has never before had any hold on him. Then he is worthy of making his way into the refuge of the wise, where he is to receive a supreme favour at the hands of the Destiny. And we too, on the threshold of that domain where radiant science holds her sway—we must leave behind us all vain unrest, if we are to make ourselves worthy for beholding at least something of the bright light of truth.

As I have said, India though united by a common civilisation could not become a nation. This vast body had been wanting in the hierarchy of functions which in the higher organisms directs, controls, and distributes the movements of life; the nation, like the individual, has a heart and a brain, centre of a perpetual exchange of collective activities,—the centre where they converge and from which they radiate. Nothing essential can be done save through them. The most distant accidents that befall the organism, are registered in them and re-act upon them; the shocks that disturb them affect injuriously the vigour and power of endurance of the whole.

Greece, divided up into innumerable cities, dispersed, as it were, in fragments, far and wide across the seas, from the

Asiatic sea-board to Sicily, gathered around Athens; strike out Athens and the history of Greece is but dust. The Roman Empire, though extending from the Atlantic to the Euphrates, is bound up indistinguishably with the capital; the last classical poet Rutilius Namatianus summed up the work of Rome in the striking phrase: "that which was formerly 'the world' that thou hast made 'the city'"—*Urbem fecisti qui prius orbis erat*. It would be idle to point out here what London is for the British nation, and Paris for the French nation. With these names before us, names that are, so to speak, synthetic, where shall we look for the centre of India? At Bénares, the very heart of intense religious activity, but which has played no part in the political life of the country? At Pāṭaliputra, at Kanyākubja, at Ujjayinī, at Puṣkalāvati, at Pratiṣṭhāna, at Kāñā—so many capitals that have shone with ephemeral splendour to sink later into *banal* mediocrity? Like the phosphorescent flames that kindle and flicker out, at haphazard, in the silence of the vast night, these names have vanished ere they could arrest the chronicler's gaze. And it is this that reveals yet more cruelly, the woeful incoherence of this mighty mass.

India has no history. A nation, like a family, has her archives in which she stores up and watches with zealous care those titles of nobility that are the honour of her past and the guarantee of her future. She has her annals, which, while the fleeting generations pass, assert the conscious continuity of a collective task. She has her great men in whom she delights to embody her ideal; she venerates them as her guides and protectors in the perplexing ways of the time. She defends their memory zealously from the threatenings of oblivion; she gathers up like precious relics even the smallest hints that are distinct in the memory. India has indeed saved some great names of her past, religious or literary, but she has only saved them to drown them in the mist of dreams or in the contradictory fantasies of fiction. She has

had a Śankara, as great, perhaps as a Luther. What has she made of him? A hero of common miracles or scholastic tournaments, so dull, so colourless, so flaccid, so unreal, that she has shifted him hither and thither anyhow from millenaries before Christ to the first millenary of the Christian era. Not one name, not one fact to fix with exactitude his place in the succession of centuries. And yet we have here a commanding personality, a personality that marks one of the decisive phases of human thought and survives still stamped upon the soul of the India of to-day. India has had a Kālidāsa, an exquisite poet and ingenious creator of forms and images, harmonious interpreter of the most noble emotions. What has she made of him? A hero of witticisms and spiteful tricks whom she attaches indifferently either to the court of a King Vikramāditya, relegated to the first century before the Christian era, or else to the court of King Bhoja who reigned ten centuries later. As a compensation she has most abundant details on the Pāṇḍavas, on Rāma, on the innumerable figures of epic legend, figures which she may be justly proud to have created since she has made them depositaries of a magnificent ideal; but, wrapt in her own dreams, she has chosen to yield herself up to them by fleeing from the less pleasing spectacle of the reality. And by an anomaly unexampled in the rest of mankind, it is from foreign teaching that India has begun to know her true greatness. She had forgotten the greatest of her sons, the Buddha. While Tibet, China, Corea, Japan, Indo-China piously repeated the story of the Master's life with gaze turned towards his birth-place, India that had given him birth, no longer knew anything about him. In vain did Nepal preserve in her valley the Sanskrit originals of the sacred texts; in vain did Ceylon despite revolutions, invasions and conquests, preserve faithfully for more than 2,000 years the three Baskets of Buddhist scriptures compiled in an Indian dialect, the Pali language, younger brother of Sanskrit; the name of the Buddha execrated at first

by Brahmanism in its day of triumph had soon disappeared amid universal indifference without once calling forth a single effort of sympathy or curiosity. It is Europe that has given back the Buddha to India. Europe by her travellers, missionaries and scholars had discovered all the way from the Tibetan plateau to the shore of the Pacific the splendid traces of Buddhist activity. She desired to know more. Both Hodgson and Burnouf contributed to knowledge, the one supplying materials, the other, facts. And India, astounded, was taught by the admiration of the world, the greatness of the son that she had scorned.

Among the kings of India there is one who eclipses even the most glorious : that one is Aśoka the Maurya. Lord of a mighty empire, founded by his grandfather, enlarged by his conquests and extending over the whole of India, he had assumed the task of practising and propagating righteousness : his edicts, graven on rocks and pillars in all the provinces under his dominion, preach in simple and familiar language the loftiest lessons of goodness, gentleness, charity and mutual respect that humanity has ever heard of. But, for long centuries the characters in which his edicts were written were but lifeless letters ; it needed a Prinsep to wring their secret from the stones grown mute and to bring to light that splendid period in which Hindu policy, encouraged and sustained by an active faith, claimed influence extending even to Cyrenaica, even to Epirus, on the confines of the Roman and the Carthaginian world. Amid the teeming abundance of Sanskrit literature, India gave birth to an exceptional genius, born to lead in every sense, and to dare all things : Aśvaghōṣa. He stands at the starting point of all the great currents that renewed and transformed India, towards the beginning of the Christian era. Poet, musician, preacher, moralist, philosopher, play-wright, tale-teller, he is an inventor in all these arts and excels in all ; in his richness and variety he recalls Milton, Goethe, Kant and Voltaire. But thirty years ago there was

not even a bare mention of *Aśvaghōṣa* in the literary history of India. *Aśvaghōṣa* is in the fullest sense a conquest of Western learning. It is superfluous to prolong the list; it affords with sufficient clearness a glimpse of all that India in the awakening of her consciousness owes to Europe. It shows—to the disadvantage of India, certainly—to what perils is exposed a people that claims to hold itself aloof from the movements of universal civilisation.

But has India ever truly realised that conception of aloofness? Since the invasion of Mahmud of Ghazni, after the year 1000 of the Christian era, facts give only too clear an answer. India, offered up as a prey to greed, to contention and rivalry on every side, is riveted to the history of Islam and the destinies of Europe. Again, if we go back to the remote past, this mirage of isolation vanishes in the light of facts. The first ray that illumines the threshold of Indian history proceeds from a cuneiform text discovered in the neighbourhood of Armenia. The documents of Babylon and Persia help us next to cast a few gleams of light on the dense darkness of distant centuries. Then arises Greece and her radiant genius seems to bring a definitive awakening to the world. Without her the history of India could be only enigma and confusion; by her, order and precision are brought into the history of India. The identity, recognised by William Jones, of the Indian Chandragupta and the Sandrocottos of the historians of Alexander, remains the corner-stone of all Indian chronology. During a period of a thousand years, the history of India is to a great extent the history of the knowledge possessed by the Greeks concerning India.

From this prolonged contact we have the problem of reciprocal influences, which puts the question of the originality of the Indian genius. Towards the beginning of the Christian era China, in her turn, comes into touch with India and for a thousand years religious zeal, political and commercial relations draw the two countries together. The exchange takes

place along by two ways, the land-route which skirts or crosses the heights of the Pamir and, proceeding from oasis to oasis passes over the sandy deserts of Turkestan; the sea-route which, by way of Insulindia, connects the Indian ports with the Chinese ports. The meeting of the two civilisations produces, on either side, a strange amalgamation: on the one hand "Serindia" as the Greeks said in the time of the Emperor Justinian, on the other hand Indo-China, as we say to-day, both being equivalent terms which point to the zone of unstable balance between two rival tendencies, two rival languages and rival societies. In this concealed struggle India appears to triumph for a fairly long time. Recent explorations in Central Asia have revealed unexpected annexations to the Indian world; rather earlier, but also in recent times, study of monuments and inscriptions has brought to light the existence of Hindu colonies in Indo-China and Insulindia, faithful guardians of the arts, the religions and the literary works of India. Finally, in the seventh century Indian Buddhism conquers yet another field for Indian culture: in the highlands of Tibet a rude and barbarous population sees monasteries rise where zealous missionaries translate from the Sanskrit the enormous mass of the canonical texts.

Thus from the Mediterranean to the Pacific ocean, nations near and far gather round India and bring together converging rays to shine upon the voiceless night of her past. The picture that emerges is not, to be sure, as clear and complete as we could wish; too often the documents say nothing or break off just at the moment when curiosity is on the track; too often, besides, the portions upon which light is thrown give us minute details which, by their seeming insignificance weary and discourage the student. However it is, this is the work which I am pressing you to pursue, for the sake of truth and of your own country. Some people may tell you that it is an idle and useless work,

and that the crying need of the present is for chemists and engineers. I do not at all belittle their work, in so far as it can make that painful human life easier and smoother. But we have been taught of late by a dreadful instance how much the most technical civilisation can be foreign to real civilisation, civilisation of the mind. Never has the beautiful saying of Buddha proved so deeply true as now :

मनःपूर्वगमाधर्मा मनःचेष्टा मनोमयाः

“ Mind takes the lead of the world ; mind excels the whole world ; the world is a creation of mind.”

In this time of sky-scrapers and gigantic bridges, mind only can build and will build a safe bridge for India to cross over the ocean of darkness and storms and to reach that “ other shore ” of peace and dignity for which she has been longing through centuries. India wants you to be her *Tirthankaras* ; but how can you show her the way forward if you have not traced back the steps which have brought her to her present stage ? You wish your motherland to stand honoured and respected among the nations, but how tremendous the experimental stages you have to pass through, if you are not fully aware of the genuine forces which allowed her to play, long ago, such a big part in the development of Eastern civilisation ? Old India, the mother of numberless children, who has passed through days of triumph and ages of sorrow, the ever-rejuvenating mother of numberless children to come, is standing before you, anxious about her way. It is not enough to worship your mother. Help her !

SYLVAIN LEVI

FIFTY-EIGHT YEARS' FIGHT WITH MALARIA

I

The delta of Bengal having been built up by rivers is a land of marshes. Consequently, it is but reasonable to conclude, that ever since it became habitable, it suffered more or less from paludism or malaria. So far as the writer is aware, however, the first authentic reference to it is by Abul Fazl, who says in the *Ain-i-Akbari*; "For a long time past the air of Bengal had been unhealthy at the leaving off of the rains, afflicting both man and cattle (?); but under the auspices of his present Majesty, this calamity has 'ceased.'" The next reference is to an outbreak of epidemic malaria at Kasim Bazar and adjacent villages in the beginning of the last century. These villages "were situated on a curve of the River Hooghly [Bhâgirathi] until a straight cut was made...forming the chord of the curve, thus changing the course of the river and throwing those places inland. This engineering operation was closely followed by the breaking out of an epidemic in all those places which, in its virulence and mortality, is unparalleled by any pestilential visitation in Bengal saving, perhaps, that which depopulated Gour. During its rage cremation or burial in due form was found impracticable, and the dead are said to have been carried in cart-loads to be disposed of anyhow; and thus the city of Cossim Bazar, once noted for its commercial importance, the extent and magnitude of which is said to have called into existence upwards of

¹ *Op. cit.* (Gladwin's translation.—The Subah of Bengal)—Unfortunately, no details are given of the anti-malaria measures adopted by Akbar. In the Malaria Conference held at Simla, in 1909 Sir Herbert Risley said that he "happened to know that in a certain district in the South of Bengal they had a very ancient, elaborate and effective system of village drainage...Subsidiary to the rivers and large drainage channels there was a regular system of drains." (Proceedings, p. 90.) It would be interesting to know the situation and date of this drainage system. It may have been a part of Akbar's anti-malaria measures.

a hundred shroffs or banking firms to meet the monetary requirements of the same, was reduced, within the short space of five years to almost a deserted waste."¹

The next occurrence of epidemic malaria was in 1836 at Muhammadpur, which at the time was a very large and flourishing town in the district of Jessore, during the construction of the Jessore-Dacca road. It broke out among five to seven hundred prisoners who were employed on the construction of the road. "One hundred and fifty of the prisoners died, and the native officers in charge of them fled. The epidemic remained in Muhammadpur for about seven years; and what between the great number of deaths from fever itself and the crowds who fled to escape the plague the total desolation of the place ensued."² There was another outbreak in Jessore in October, 1846.³

But, these were sporadic outbursts due to local causes. Bengal, on the whole, continued to be fairly healthy and prosperous until about 1860. The first famine she suffered from was in 1769-70, nearly a century before that date, and the second in 1873-74, about a decade and a half after it. Macaulay writing only two decades previously describes Bengal in the following glowing language :

"Of the provinces which had been subject to the house of Tumerlane, the wealthiest was Bengal. In spite of the Muslim despot and the Mahratta freebooter, Bengal was known throughout the East as the Garden of Eden, the rich kingdom. Its population multiplied exceedingly. Distant provinces were nourished from the overflowing of its granaries, and the noble ladies of London and Paris were clothed in the delicate products of its looms."⁴

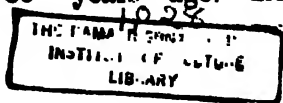
¹ Minute by Raja Digambar Mitra appended to the Report of the Malaria Commission of 1864.

² Hunter's "Statistical Account of Jessore," p. 212.

³ Hunter, *op. cit.*, p. 335.

⁴ "Critical and Historical Essays—Lord Clive."

Districts which during the last six decades have been devastated by malaria were among the healthiest. The District Gazetteer notes in regard to Burdwan, that "before 1862, the district was noted for its healthiness, and the town of Burdwan particularly was regarded as a sanitarium. In fact, it was customary for persons suffering from chronic malarial fever to come to Burdwan where cures from the disease were common." Dr. A. J. Payne in a report on the Burdwan Division submitted in 1871 remarks, that "a fatal fever has of late years become epidemic, with seasonal outbreaks of extreme severity over a large tract of country which includes districts formerly among the healthiest in the province." In the beginning of the nineteenth century there was a College at Baraset for cadets on their first arrival from England which would not have been the case if it had been so intensely malarious as it has been for sometime past. In regard to the district of Nadiya which is now being depopulated by malaria, the Census Report of 1901 observes that "it was once famous as a health resort, and it is said that Warren Hastings had a country house at Krishnagar." Dr. R. F. Thompson says of the Hooghly district in his Sanitary Report of 1868, that "if a common belief or impression among natives is of any value, the Hooghly district would seem to have undergone a vast change for the worse in respect of the health of the people." Midnapore was practically free of malaria in the beginning of the last century. Even as late as 1851-52, of the total admissions for treatment at the dispensary there only 4 per cent. were cases of intermittent fever. "In regard to the History of Bengal Malaria," says Dr. Bentley, "and the question as to whether there has or has not been an increase of the disease in comparatively recent times, an examination of existing records seems to afford overwhelming proof that many areas now suffering intensely from malaria enjoyed a relative immunity some 50 to 60 years ago. Recent investigation has



shown also that in certain localities a rapid increase of infection has occurred within the course of the last 10 years."¹

The most virulent and the most widespread type of epidemic malaria began to rage only since 1860. The fact that it was known among the people as "*nutan jvar*" (new fever) shows that nothing like it had been experienced before. Contemporary records contain harrowing accounts of its ravages. At Burdwan, in 1862, large numbers dying daily were carried in carts. Dwarbashi, a large and populous village in the district of Burdwan was nearly depopulated. At Kalna in the same district, "a great number of homesteads had been deserted, and there was scarcely a house in which several inmates had not been carried off." Kanchrapara lost 1,354 out of 3,326 residents. The Commissioner of the Presidency Division wrote in a letter in July, 1864, about the district of Nadiya: "Every village has its homesteads which have been emptied by death or deserted by the occupants in order to escape the scourge. Almost every man I met had a story to tell of his own suffering which his appearance confirmed, and a list to give of parents, wife, children, or relatives carried off. In some villages above a third of the population must have died within the last three years, and I have been assured by two respectable inhabitants of Halishahar, that the state of debility to which the adults of the village have been reduced is so universal and so extreme, that accessions to the population from the most natural source have ceased."

The first Malaria Commission was appointed by Government in January, 1864. Since then some Committee or Conference has met nearly every quinquennium to deliberate upon the remedial measures for malaria; and as for experts, engineering and medical, and other high officials who have reported upon the subject, or penned minutes, circulars and

¹ "Report on Malaria in Bengal," Pt. I, p. 74.

resolutions, their number is legion. The archives of Government are groaning under the weight of leaflets, brochures and tomes recording the researches, disquisitions and opinions of these high functionaries. And as I am writing (July, 1922), a new committee is about to begin its labours to add to that weight. There have been endless Councils of War, but little actual fighting.

As we shall see later on, if the suggestions of the first Malaria Commission were acted upon, Malaria would have been considerably crippled and Bengal would probably have recovered the health it had enjoyed before 1860. But the fiend in contemptuous mockery of the scriptory fusillade of Government has been fearlessly stalking the land during the last fifty-eight years unrestrained in its nefarious activities. The bureaucracy apparently to save its face and hide the ignominious defeat it has suffered publishes elaborate schemes formulated by the generals of the force maintained for fighting malaria, and occasionally announces the discoveries made by them of the weak points in the enemy's stronghold. The venerable Minister in charge of the Public Health of Bengal gave an account of such discoveries at the Legislative Council of Bengal last year. I wonder if he was aware that he was unconsciously treating the Council to a piece of composition, for the like of the humour of which one would have to turn to the pages of "Pickwick Papers" or "Gulliver's Travels." Sir Surendranath Banerjee, who has enthusiastically girded up his loins to carry on a vigorous campaign against Malaria, gravely announced as one of the "important facts" revealed by the researches of the Health Department, that "following upon an increase of malaria and a corresponding rise in the mortality, depopulation of the affected villages commences, and simultaneously land goes out of cultivation, homesteads are deserted in the villages, and an increase of jungle and useless vegetation occurs." I wonder if the mofussil members of Council could suppress their risibility

when this "important fact" was announced. The spirit of Raja Digambar Mitra would stand agape with amazement (not unmingled with gratification) at the "discovery" that "the construction of embankments in low lying areas whether for roads, railways or other purposes, is almost invariably followed by an increase of malaria as shown by a rise in the spleen rate, the sickness rate, and the mortality of the affected areas."

Another momentous discovery: "Malaria in the low-lying areas is not usually associated with excess of water, as has long been believed, but that, on the contrary, it usually increases coincidentally with an actual diminution of the water present on the land during the rains." I do not know whence the Director of Public Health got the idea that malarial fever had hitherto been "usually associated with excess of water." The contrary has, so far as the writer is aware, been the prevalent belief of the people in Bengal. Some doubt appears to have crossed the mind of the Honourable Minister as to whether these discoveries should be placed in the category of "original discoveries." For, he observes: "whether or not they are to be classed as 'original discoveries' is possibly open to discussion, but the fact remains that at present these discoveries are not to be found in any published text-book on malaria." I am afraid, in trying to emblazon the reputation of the Heads of the Health Department he has unwittingly tarnished it by supposing them capable of claiming as discoveries facts which do not occur in published text-books on malaria. I do not know of any such text-book which gives information of any great value about malaria in India. But in regard to one of the discoveries, I find the following passage in "Prevention of Malaria" by Sir Ronald Ross (pp. 277-278): "Marshes difficult to deal with are often formed by roads, railways, houses, irrigation canals, ill-managed water conduits and standpipes and even by badly made drains." In regard to another discovery, the following

statement by Dr. Maclean is quoted from Quain's Dictionary of Medicine," p. 913, by Dr. Gregg, who was for sometime Sanitary Commissioner for Bengal, in a circular letter to Municipalities (1889): " Marshes are not as a rule dangerous when abundantly covered with water ; it is when the water-level is lowered, and the saturated soil is exposed to the drying influence of a high temperature and the direct rays of the sun, that the poison (malaria) is evolved in abundance" (Dr. Maclean wrote before the establishment of the mosquito theory).

(To be continued)

P. N. BOSE.

CHARLES H. TAWNEY

In the Eighties of the last century the name of Professor Charles H. Tawney was a household word in educated Bengal,—and in more than Bengal. The slanting crawl of his autograph—much sought after then as now, in spite of the prevailing spirit of disruption—at the foot of University Certificates, was appreciatively preserved in thousands of homes, not merely in Bengal, Behar, Orissa and Assam, but also in what are now the United Provinces and the North Western Provinces and in Burma, Nagpur and Ceylon, all which were under the fostering care of the University of Calcutta, during much of the time that Mr. Tawney was its Registrar. He held this important post from 1877 to 1881, from 1884 to 1885 and in 1886 and 1889. Many generations of Calcutta graduates and undergraduates had some thing or other to do with him from 1864 to 1893. The touching words of the inscription on the pedestal of his bust at the Entrance Hall of the Senate House of the University, remind after-comers of many hundreds of his “pupils’ and friends’ grateful recollection” “of his unvarying kindness,” during his “career of 28 years in India.” It was service, long, meritorious and fruitful such as few could claim to their credit. And when he retired from India in 1893 he did not give up serving India. As Librarian of the India Office till 1903, his interest in India and matters Indian, was continuously maintained and even when he retired from the India Office in that year, he kept up constant correspondence with those he had known in India and through whom he had learned to revere India.

Professor Tawney’s name was not a commonplace household word in Bengal, as that of a work-a-day administrative



CHARLES H. TAWNEY

(By courtesy of the Presidency College Magazine)

officer, who filled space merely occupied by routine duties; it was honoured by hundreds who had sat at his feet and profited by his teaching. Among these are to be found men in the forefront of public, professional, industrial and official life in Bengal, men who have contributed enormously to the building up of the prevailing order of things in the country, call it nation-building or whatever else one may like. Many of them have been called away to their rest prematurely and those that are spared will recall with affection and veneration the many qualities of their revered Professor, who—in his turn has been called to his rest, at the ripe old age of 85. In his retirement at Charltey, Camberley (Surrey), Mr. Tawney used to spend the evening of his days in a predominantly Indian atmosphere, surrounded by his books and manuscripts that had become his life-companions and essential to his existence. Though never very strong, he enjoyed fairly good health, till his wife's death last year wrecked it altogether. It was my misfortune and will be my abiding regret that both in 1912 and 1921 I was unable to avail of his pressing, cordial and repeated invitations to spend some time with him in his Surrey home. His advancing age and infirmities did not permit his travelling to London often and his friends saw but little of him there in recent years.

There must be many who remember Mr. Tawney's scholar-like stoop that had come upon him even in the prime of his life, his gentlemanly bearing, his spare slim figure, and the firm, steady, measured step with which he silently traversed the corridors, on his way to noiseless discharge of unending duties. His was pre-eminently "the leaden eye that loves the ground," and though he seemed not to observe, woe to unwary and the careless who thought that the least of wrong doings escaped his notice. Those who believed that Principal Tawney knew not his students, their faces and their names, sometimes had a rude disillusionment. But he never mauled any and things soon corrected themselves. His innate and unobtrusive

kindliness took the place of what goes by the common name of tact and always prevailed.

His thin compressed lips, his quivering nostrils, according to some, the hall-mark of dignified restraint, were a great aid in disciplinary action. *Principal Tawney* never failed as an administrator; and *Professor Tawney's* unspoken wishes always maintained order in and out of the class room. And what remained was finished soon enough when his fine sense of humour in which he was never lacking, lightened up his austere countenance and the disciplinarian and the students' friend formed an indivisible entity and prevailed unquestioned. Following a great administrator and organiser as *Principal Sutcliffe*, *Principal Tawney's* work was naturally difficult; but the gentleman and the scholar, above all the Man, triumphed. And that it is, after all, that really matters and triumphs. It is a pity that this little truth is not often recognised and remembered.

His clean-shaven upper lip and chin, his spare side-whiskers, provokingly mid-Victorian, his prominent forehead, and sunken cheek complete the outlines of his well-remembered physiognomy. A sharp nasal twang, not quite American, but characteristic, slightly marred his clear and beautiful pronunciation at times and interfered with his diction. It amounted almost to mannerism. Though anything but fashionable, he was scrupulously neat and correct in his attire, which marked him out among colleagues like *Sir John Elliot*, *Mr. Clarke* and *Dr. Booth*, almost scrupulously untidy in their get-up. The little *Brougham* much fancied in those days by doctors and others, that brought him to the College and waited for him with its horse taken off, used to be three quarters filled with the spoils of the library and it was with some difficulty that his pepper and salt morning coat escaped being creased, while mercilessly brushed against dusty tomes both ways to the College and fro. A straight diagonal—a veritable bee-line, from the portico of the *Presidency College* to the

gate of the Hare School, past the Hare statue—took him to the Senate House, where the faithful Trailokyanath Banerjee used to keep his work out out for him.

Professor Tawney early made his mark in the Presidency College. This was no easy task, for among his colleagues at the beginning and later, were capable and distinguished men and devoted teachers who made the Presidency College what it was in the Seventies, Eighties and Nineties of the last century. Some of them were outstanding landmarks in the Educational field and a few were veritable giants. It was an illustrious roll of which any institution in any land might well be proud—Moheshchandra Banerjee, Ishanchandra Banerjee, Pearycharan Sarkar, Prasannakumar Sarvadhikary, Rajkrishna Mookerjee, Krishnakamal Bhattacharyya, Sutcliffe, Croft, Beeby, Pedler, Elliot, Clarke, Robson, Rowe, Webb, Paulson, McCan, Wilson, Mann, Hand, Gough, Hoernlae, Little, Gilliland, Booth, Nash, Edwardes, Bellet, Percival, Bipin Gupta would be honoured names anywhere. And the outturn was also worthy, for among it rank men like Bhupendranath Basu, Asutosh Chaudhuri, Byomkesh Chakrabarti, Suryyakumar Agasti, Nandakrishna Bose, Herambachandra Maitra, Kallysankar Sukul, Govindachandra Mookerjee, Dwarkanath Chakerbutty, Nalini Chatterjee, Narendralal Dey, Amulya Chandra Mitra, Digambar Chatterjee, Ramnath Bhattacharyya, Ramchandra Majumdar, Baradacharan Mittra, Shamsul Huda, Abdur Rahim, Abdur Salem, Jogendrachandra Ghosh, Asutosh Mookerjee, Senior and Junior, Hem Chandra Sen, Kedar Nath Sikdar, Bipinbhabhary Ghosh, Charuchandra Ghosh, Mohinimohan Chatterjee, Pankajcoomar Chatterjee, Binodechandra Mittra, Prabhashchandra Mittra, Brojendralal Mittra, Nripendra Nath Sirkar, Sureshprasad Sarvadhikary, Jotiprasad Sarbadhikari, Jogenchunder Dutt, Satyendraprasanna Sinha, Satyacharan Mookerjee, Jogendrachandra Mukerjee, Ramsadan Bhattacharyya and Praphullachandra Ray, to speak only of a few nearest to my time and whom I knew best. There were many

before and after these times, who were quite as worthy, some worthier.

The background formed by professors and pupils like these, was no unworthy scene of Professor Tawney's toils and he toiled hard and unobtrusively for a long stretch of 28 years, during which he assisted in keeping the College and the University flags flying. The tone and standard maintained were the best and the highest. During these 28 years, Professor Tawney, in the words, of the inscription on the pedestal of his bust, "rendered conspicuous services to Education, as Professor and Principal of the Presidency College, as Director of Public Instruction, Bengal, and for eight years as Registrar of the Calcutta University." 1028

The story of Professor Tawney's life is quite shortly told. It was uneventful in a sense, as such lives go; but it was full, rich and ample and replete with far-reaching results.

He was son of Rev. Richard Tawney, Vicar of Willoughby, and Susan James (daughter of Dr. Bernard of Clifton). He was born in 1837 and inherited the scholarly and clerical instincts both of the father's and mother's side, though of clerical tendencies he never gave much indication. Educated at Rugby and Trinity College, Cambridge, his early tendencies had the fullest possible scope. He obtained the Bell University Scholarship in 1857 and the Davies University Scholarship in 1858. In the same year he became a scholar of Trinity and was bracketed as Senior Classic in 1860. He obtained the Fellowship of Trinity in 1860 and worked as a Fellow and as a Tutor in his College for 4 years, which gave him abundant grounding and opportunities of cultivation of his special tastes in Classics.

In 1864 he was appointed as Assistant Professor of the Presidency College and soon became a Professor. Subsequently he rose to the Principalship, on the retirement of Mr. Sutcliffe in 1877. He held the post of Principal till 1891. For eight years off and on, he was Registrar of the Calcutta University

and thrice officiated as Director of Public Instruction, Bengal, till 1893, when he retired to England. After this he took up the post of Librarian to the India Office. He filled that post till 1903 and was made a Companion of the Indian Empire. On his retirement Mr. Thomas was appointed to this office. It will be remembered that Mr. Thomas visited the Calcutta University last year and lectured there on Indian History.

Mr. Tawney was appointed a Fellow of the Calcutta University quite early in his career—in 1869; he took keen and active interest in the details of University work from the very beginning. Without such interest no one makes any advance in academic life—a slight truth that is often forgotten by aspirants after academic honours. In 1869 he was appointed a member of a Sub-Committee to prepare an Address to be presented to H. R. H. the Duke of Edinburgh. This was the first time that a member of the British reigning family visited India and the University rightly extended its warm welcome to His Royal Highness; Honorary Degrees were then not in vogue. In 1885 we see him appointed member of a Committee to consider the subject of remuneration to Examiners and also of the Board of Moderators in Arts and Science, which was just coming into existence. In the same year he acted as member of a Committee appointed to consider and report on a letter from Rev. J. Hewlett proposing that the system of prescribing text-books should be less adhered to. This shows how public mind was being agitated in these directions even in those early times, in spite of which text-books flourished. In 1889 Mr. Tawney was appointed a member of the Committee formed to revise the rules for (1) the Entrance, F. A. and B. A. Examinations, (2) the P. R. S. Examination. He was not above details as was erroneously presumed by some; in 1891 we find him appointed a member of the Committee for the election of Gilchrist scholars. He attained the higher honours also and was twice President of the Faculty of Arts, in 1885 and

1893 and he resigned his Fellowship in 1893 when he retired from the country. His interest in University work lay deeper than the surface. As early as 1865 (?) he contributed to the *Calcutta Review* a paper entitled "Studies of the Calcutta University." It will be fully worth reproduction in these pages some day, to show what great minds in those days thought about the thorny points now agitating us, few indeed of which are new.

An well executed bust in white marble, the inscription on the pedestal of which has succeeded in bringing out some of his characteristic features, commemorates Mr. Tawney's services to the cause of education in Northern India. The inscription will well bear quoting. It is in the following words :

To

CHARLES HENRY TAWNEY, C.I.E., M.A.,

Formerly Fellow of Trinity College, Cambridge,

Late Fellow of the University of Calcutta,

And now Librarian of the India Office, London,

Who, during his career of 28 years in India,

Rendered conspicuous services to Education

As Professor and Principal

of the Presidency College, Calcutta,

As Director of Public Instruction, Bengal,

And for eight years as Registrar of the

Calcutta University

This Bust has been erected

By his Pupils and Friends in India,

Who retain a grateful recollection

Of his Unvarying Kindness,

And a Profound Respect

For the Wide range of his learning,

And for his special Erudition
In the Classical Literature
Alike of Europe and of India.

Many who wrongly thought and said that Mr. Tawney was a cynic and a pessimist and had few friends, because of saturnine disposition which he ill-concealed, will be disabused by the text of the inscription. Every word of it is strictly true and accurate. His "unvarying kindness" to those he knew and who knew him, was a notable feature of his character, and many willingly testify to it even to-day. The last four lines of the inscription were amplified in the resolutions of the Faculty of Arts, dated the 7th of January, 1893, and of the Syndicate, dated the 14th of January, 1893, which will speak for themselves.

The Resolution of the Faculty of Arts, held on the 7th January, 1893, is the following words:—

"The Faculty desire to place on record their high appreciation of the eminent services rendered by Mr. Charles H. Tawney to the University. The Faculty have had frequent occasions to observe and admire his ripe experience, his varied scholarship, his conciliatory and generous spirit and his liberal treatment of all matters arising out of the great objects of University education; and the Faculty take this opportunity of expressing their deep sense of the loss sustained by the University through his retirement."

The Resolution of the Syndicate, dated the 14th January, 1893, was:—

"That the Syndicate deeply regret that by reason of the departure of Mr. Tawney from this country, they are deprived of his invaluable aid as a Member of their Body and the University loses the distinction of counting him among its Fellows. It is not only the loss from amongst them of a scholar of such eminence that they regret, great as such a loss is, but in Mr. Tawney they also lose a colleague whose wide

and varied knowledge of affairs, whose keen sagacity, whose high tone and sense of right, and whose unfailing sympathy and good feeling they will long remember with sentiments of respect and of regret. They wish him, after his return to his native country, a long life of successful labour in the cause of learning, which he is so well-qualified to advance, and which has, during his residence in India, so signally benefited by his exertions and his example."

An eloquent tribute was paid to Mr. Tawney's services at the Senate meeting and the Convocation of the University that followed and the movement which resulted in the erection of the bust mentioned above, was taken in hand by his many pupils and friends, in and outside the University.

India is perhaps the foreign country, outside Germany, where Shakespeare is most appreciated and venerated by educated people. It used to be a keen regret of educated modern Bengal that it came after the days of D. L. Richardson and that there never was another Richardson. Those that had Charles H. Tawney for their teacher overcame this regret, for there has hardly been a more capable interpreter of the Poet in India after Capt. Richardson than this gifted Professor, though he may have lacked the histrionic talents of the Captain. The Variorum Edition of Shakespeare appeared in the late seventies and was a great help to Shakespeare students, who had no direct access to the enormous Shakespeare literature to be found in western seats of culture. But before its appearance Mr. Tawney was a veritable variorum edition by himself to his devoted students. It is a pity that he did not leave behind him in a tangible form evidence of his vast Shakesperian erudition and an inconsiderable school edition of Richard III (1888) is all that he left. Enjoyment of the poet in his inner sanctum, which he sometimes managed to transfer to the class room, was Mr. Tawney's great feature and so engrossed, absorbed and engulfed did he become in this enjoyment, while lecturing,

that the unthinking portion of his class believed that he took no note of it. The devoted and the elect, however, knew how mistaken this idea was and they literally hung upon every word he spoke. And sometimes the unspoken interpretation, the pause, the halt, the look, if observed, meant and conveyed volumes. Mr. Tawney was nearly as great in Milton and Burke and his inborn love of freedom and liberty, broadened during his Cambridge days was voiced, unmindful of conventional and obligatory restraint.

There was little scope for display of his Latin and Greek lore in the ordinary everyday work of the College or the University. According to those that knew and could judge, it was vast. Though there was no room for it here, Mr. Tawney made up for his loss in this direction by ardent devotion to Sanskrit, which in more sense than one, was then a live language in Bengal, much more than it is now, though the superficial area affected may have increased to some extent. Mr. Tawney devoted himself heart and soul to Sanskrit as soon as he arrived in this country and to his credit are to be placed many acceptable translations from Sanskrit into English. Some of them are Uttar Ramacharitam (1871, 1874), Katha Saritsagar (1884), Katha Kosa (1895), Malavikagnimitra (1875, 1891), Prabandha Chintamani and two centuries of Bhartrihari (1877). Immersed in his own favourite work, as he always seemed to be, Professor Tawney's was by no means an isolated and detached literary existence. He helped and encouraged others, whenever he could. He revised and partly wrote out Pandit Nilmony Naylankar's English Translation of Raghuvamsa and Bhattikavya in 1880. His interest was by no means confined to Sanskrit, but also extended to the growing latter-day literature of Bengal. One of the most remarkable productions in this direction was Taraknath Ganguly's fine social novel *Sikarnalata*, which was translated into English in 1906; and Mr. Tawney wrote an appreciative preface. Translation of Katha Saritsagar in two volumes

was a part of his work in the Asiatic Society of Bengal. His critical notes in the course of this gigantic work, though spare and occasional, are a notable contribution to the Science of Folklore that materialised later on. They point to the Indian origin of much that Europe appropriated.

Mr. Tawney's natural talents, taste and aptitude and his classical training were a great help in rapid acquisition of Sanskrit, affinity of which with Greek and Latin was being discussed in learned circles before Max Muller and Sayce widened the scope of these ideas. Added to his own tastes and talents was a slight topographical accident which afforded a strong secondary aid.

The Presidency College was not located, when Mr. Tawney came, where it stands to day. Lord Northbrook laid the foundation stone of the new buildings and it was opened in 1874. Before that it was located in the cramped, dark, inconvenient, old-world block now occupied by the western half of the Hindu School, across the College Street. The Hindu School was confined to the eastern block and in between the old Hindu School and the old Presidency College was the Sanskrit College, with its spacious quadrangle. In the midst of this stood the canopied statue of David Hare, now occupying the field between modern Hare School and modern Presidency College. On three sides of the quadrangle and on both floors were the Sanskrit College Class and office rooms, the fourth side being a noble colonnaded open portico, that one sees from College Square, North. Both the Presidency College and the Sanskrit College were cramped for space and both requisitioned for more new rooms on the first floor, which were sanctioned. Principal Sutcliffe of the Presidency College believed in the Inch and Ell theory of life, and put in a claim for the old first floor room on the south of the quadrangle, where the valuable manuscript treasures of the Sanskrit College were housed. Director Atkinson seconded

the claim and the Lieutenant Governor agreed. Pandit Iswarchandra Vidyasagar had left the Principal's post and a Kayastha Principal—Principal Prasannakumar Sarvadhikary—was in office. His known sweetness of temper and amiability of disposition were attempted to be exploited ; but true as steel, he could be strong when occasion needed and was strong on this occasion. He revolted entirely and rather than see the beloved manuscripts go to destruction in the damp ground floor, he resigned. He ultimately prevailed, the manuscripts were undisturbed and the Presidency College had its new buildings later on.

During this struggle, which was long drawn and intense, Professor Tawney's moral as well as active support was throughout in favour of Principal Sarvadhikary ; he was as ardent a lover of the red-clad board-backed manuscripts of untold value. Professor Tawney's own chief and other high officials were disgusted and Principal Sarvadhikary and Professor Tawney, with affinity of tastes, became fast friends. It ripened after the storm blew over and lasted. The resources of the Sanskrit College Library and its Professoriate were entirely at Mr. Tawney's disposal. And what a Professoriate it was. Premchand Tarkavagish and Joynarayan Tarkapanchanan had been succeeded by Bharatchandra Siromani, Taranath Tarakavachaspati, Grishchandra Vidyabhushan, Dwarkanath Vidyabhushan, Ramnarain Tarkaratna, Harinath Nayaratna, Jaganmohan Tarkalankar, Rammoy Vidyaratna and Maheshchandra Nayaratna.

For natural and obvious reasons it is not for me to dilate on Principal Sarvadhikary's powers and attainments as a scholar and as an administrator ; but it would be incomplete narration not to refer to his part in the shaping out of the growth of Sanskrit and Bengali Culture and Literature, which were then turning into quite an untrodden path.

Pandit Iswarchandra Vidyasagar and Babu Prasannakumar Sarvadhikary were old school friends. They came from

the same part of the country, chummed together, toiled and struggled together and triumphed together. They taught one another Sanskrit and English and the literary partnership continued, the result of which were Vidyasagar's *Vetal Panchavimsati*, Sitar Banabas, Vraptibilas and Sakuntala and Prasannakumar's *Patiganit* and *Vijaganit* and Rajkumar Sarvadhikary's *Englander Ilihas*. Some of their students took up the work later on and Tarasankar Tarkaratna, Tarakumar Kabiratna, Nilmani Mookerjee, Narsinghachandra Mukerjee, Sasibhusan Chatterjee, Khettermohan Sengupta, Krishnakamal Bhattacharyya, Shivanath Sastri and Haraprasad Sastri, Nilambar Mookerjee and Tarinycharan Chatterjee made contributions to the building up of Bengali literature, more or less rich and solid, according to the limitations of each. Iswarchandra and Prasannakumar also considerably influenced Michael Madhusudhan Dutt and Hemchandra Banerjee, as abundantly appears from their published biographies.

Vidyasagar's translations were more than translations, they were fine adaptations, almost original work, in Bengali. But whether original or translations they were works of striking merit and did great service. They were not however quite what was wanted from certain other points of view and Principal Sarvadhikary and Professor Tawney thought that close and faithful translations of some Sanskrit works of merit would be a great help in making Sanskrit literature better known outside India. In the preface to the first edition of his translation of *Uttararamcharita* Professor Tawney voices this idea. "The poetical translation of the play by Professor Wilson," he says, "though scholarly and spirited, departs too far from original to be a trustworthy guide." In the preface to the second edition he said that he had endeavoured to give the literal meaning of the Sanskrit "without dishing up Hindu ideas, so as to make them agreeable to the taste of Europeans." "It is absurd," he says, "to expect idiomatic English in a

translation of a Sanskrit composition." "We must not be ashamed of the phrases," he continued, "that move the laughter of Englishmen unacquainted with Sanskrit."

Principal Sarvadhikary obtained the services of his friend and colleague, Pandit Girishchandra Vidyaratna well-known for his *Sabdhasar* and his edition of Vopadeva's *Mughdhobodh* and Pandit Maheschandra Nayratna for Professor Tawney. He also secured for him the willing assistance of his favourite students Krishnakamal Bhattacharyya and Narsingchandra Mookerjee. Uttar Ramacharit upon which Pandit Iswarchandra Vidyasagar's Sitar Vanavas had been based, then came to be faithfully translated by Professor Tawney in 1871. And Pandit Narsingchandra Mookerjee translated it soon after into equally faithful Bengali, which afforded the basis of Bankimchandra Chatterjee's superb critique of *Uttarram Charit*, which embellished the early pages of the *Bangadarsan*.

Prasannakumar Sarvadhikary's devoted band of friends and students thus became the staunch supporters of the scholarly young Professor from the West, who in the battle of Libraries, in some ways similar to the battle of Four Courts, as many will remember, had loyally befriended their chief. And Professor Tawney's work grew from more to more. He was one of the few latter-day Europeans who genuinely loved India through its learning and literature, and was a worthy after-comer of Jones, Wilson and Colebrook. And he found worthy and willing co-adjutors, but for whom he could not succeed as he did.

Students of the Sanskrit College organised acting of Sanskrit plays in the late sixties and Pandit Shivanath Sastri was one of those that took part. *Veni Samhar* and *Sakuntala* were two of the plays staged at the College and the seemingly dry-as-dust Professor Tawney gave much useful help in scenic and "property" arrangements, as well as in the histrionic section of the work. His favourite *Uttarram Charitam* could

not be attempted, in absence of actors who could adequately fill the subtle parts in the great drama. This is a great regret that long continued unremoved, though two rival and competing clubs exquisitely stage every year, difficult Sanskrit dramas including those of Bhas.

If among these be any admirers of Professor Tawney, mayhap, they will think of a suitable oblation to his departed spirit by staging *Uttarr m Charit* next year or soon.

Mr. Tawney was the last of persons to appear capable of being stage-struck and his reading and interpretation of Shakespeare was anything but stagey. Dowden and Gervinus had not yet been displaced by Brandes and some enjoyment was still permissible. Whenever even a seventh rate Shakespeare Company visited Calcutta, *dhoti*-clad figures filled the auditorium to the exclusion of dainty evening dress. When the Bandmann Boudaix Company took Calcutta by the storm in the early eighties Calcutta graduates and undergraduates gave abundant demonstration of their love of Shakespeare, that took aback the master actor Bandmann and his countrymen. The fever caught on and raged, though University Examinations (which in those days were held on delightful November days) were also on. Literally on the eve of the examination a candidate of the morrow, stole away from bed and stole back, after imbibing his fill of Hamlet. Next day at the examination hall fever-stricken, his exploitation of Shakespearian stage was a mad-like onrush, that under the latter-day system of marking would have landed the unfortunate candidate on untold grief. The Examiners—Sherring and Deighton—mighty names in those days, luckily took another view and spoke to the lad's Principal about the phenomenon. When the culprit was sent for by the Principal—grim and sardonic—he was all on a tremble; but the reassuring smile that spread over the austere face after explanation, established the basis of lifelong admiration, some of which is feebly reflected in this all too incomplete appreciation.

Years later when, through Lord Lytton's hospitable arrangements, last summer I had opportunities of participating abundantly in the Shakespeare festival at the Memorial Theatre in Stratford-on-Avon and also at Old "Vic," on the Surrey side of the Thames, the memory of that mad feat forty years ago and Principal Tawney's forgiving encouragement all came back to mind. I mentioned it to Lady Beerbohm Tree, round Lord Lytton's hospitable table in his London house and they much enjoyed and appreciated the episode and were filled with admiration for the great Professor,—I was then looking forward to the oft-thought-of pilgrimage to Camberley, where my stricken preceptor lay. It was, alas, not to be and the loving, pressing invitation remained over to be responded to another time. But that another time never came. Time intervened and did its fated work.

May Charles H. Tawney's soul have peace and rest and may his rational love of India and Indians, widen, broaden and deepen in his countrymen's and countrywomen's hearts for the good of India and also of England,—and mayhap of the world. Men like Mr. Tawney are often unbreakable links in nation-binding bonds and their withdrawal from their sphere of action and influence is a national disaster.

Those who knew Mr. Tawney and his work, mourn his loss as such.

DEVAPRASAD SARVADHIKARY

SOME BIRD PETS OF BENGAL

(*The SHAMA*,—*Cittocincla Macrura*)

The Shama, as a songster, is entitled to the first place in the whole feathered community of Bengal, and for the matter of that, of India. For a competitor to whom it yields in song, we have to look to regions which are, strictly speaking, outside India, to that unassuming bird which, despite its homely beauty has been rendered immortal by its vocal charms—the Nightingale. Though the Shama is overstepped by this prince of songsters by a long distance, yet the sweetness of its song is highly remarkable for its variety, depth, impetuousness and modulation, which have made it the darling of both the high and the low throughout the length and breadth of India. This bird was familiar to our ancestors in the long past. The name Shama signifies ‘glossy dark’—a predominant colour of the bird. The name has another fascination for the Hindus, whose love and reverence for the goddess of that name are so well-known. The bird has yet another charm. It is very docile in captivity, though so bold and fearless in demeanour. This, added to its beauty and its wonderful capacity for imitating human voices and calls of other birds and animals, has greatly enhanced its value as a caged pet. The attention which it can thus command from its master is no less remarkable. It is commonly kept in a lovely cage of superior workmanship, always wrapped up with a piece of clean linen, and taken out every evening for an airing. Those who can afford, engage servants specially for this purpose, and it is not an unusual sight in many an Indian city to see several such cages taken out to a municipal park or open ground for the airing. A covered cage is always looked upon by the Indians as essential to keeping a bird in health and song. The belief has taken such a firm hold on the

mind of the masses that no amount of reasoning can dissuade them from this practice which is obviously contrary to all hygienic rules; for, in fact, birds in open cages, enjoying air and light, do not sing the less or fare the worse in health. In spite of this drawback in caging, the caged Shama can be pronounced to be an avicultural success, for the bird grows robust and lives long in confinement, and, except for the short moulting period, it sings throughout the year. And, since the bird is often caged when young, it gets accustomed to human intrusion, and acquires a non-chalant air about it, singing away its days quite oblivious of the presence of man.

The Shama, in freedom, is not a familiar sight to us. It is a denizen of thick jungles and dense forests, keeping generally to the underwood. It loves to frequent thickets in glades and valleys located in the midst of hills or mountains. It is, therefore, absent in the districts devoid of these natural features. In Bengal, which is one of the most thickly populated provinces, this bird confines itself to those jungly districts where human habitation is scarce. For this reason it rarely

Distribution.

makes the deltaic portion of Bengal its place of abode, but is often a dweller of the western skirts of the districts of Midnapore and Birbhum. Eastwards from the Padma in the verdant hills of Cachar, Assam and Tipperah, it is very numerous. In other parts of India its most important ranges are the Terai districts of the Sub-Himalayan regions from Nepal to Dibrugarh in Assam. It is also represented in the well-wooded hills and forests of Central India, Orissa, Chotanagpur and the Rajmahal Hills. In Southern India, it is a permanent resident of the hill-ranges of the West as far north as Khandalla in the Sahyadri. Its range extends beyond the Palk Straits into Ceylon, where it is very abundant. In the eastern parts of the Deccan, it is seen in Malabar. It is absolutely a stranger in the provinces west of the Ganges. and in Rajputana. It is widely and abundantly found all over Burma.

It is invariably a resident bird in the localities to which its range is confined, but in the hill-tracts of Cachar, it has been observed to be a winter

Field Notes.

visitant. It seldom ascends the hills to any great height, nor is it ever seen in cultivated tracts, however well-wooded. The hills and forests, the jungles around streams and woods in valleys and dales which the bird frequents are hardly considered by it as its safest retreats; and so, by way of further precaution, this wary bird betakes itself to the most impervious thickets, under-wood and clumpy bushes where it is able to escape the most searching observations. Almost everywhere within its range, the bird shows a preference for particular spots, over which it holds sway and even seems to stick to this favoured haunt in spite of devastations by occasional fires which break out in the forest.

The Shama thus chooses for its habitation places where Nature is luxuriant and arrayed in its varied glories. In the mornings and evenings, from the midst of a bush or a bamboo-scrub—for which it seems to have a partiality—it mingles its impetuous melody with the music of rustling leaves and murmuring rills. And, while rapt in its own song, the least sound will send it scurrying through the air—so shy and easily alarmed it is! But its flight is never long; and re-alighting at a short distance, it vanishes into leafy cover, whence it renews its song with as much vigour. When the usual notes are thus suddenly interrupted, the bird gives out a sort of monosyllabic sound which, Legge says, resembles *churr churr*. But to me it hears more like *t'chat t'chat*. This peculiar sound is accompanied by a jerking up of the tail.

It never soars high into the air, nor is it ever seen perched on the topmost branches of trees; but it makes it a point to keep as near the ground as possible, generally selecting low branches for perching. From such a position, it is always on the look-out for any insect which may stray into view. As soon as it notices its prey, it comes down to pick it up; and if,

in the act of swallowing the worm, it happens to spot another, it hops up to bag this one also. It is chiefly insectivorous, its menu consisting of grasshoppers, small beetles, ants, flies and their congeners.

Solitary in its habits, it aggressively drives away any member of its own community, and on the approach of one, it will at once attack the latter fighting fiercely, till one gives ground. The unsociability of this bird falsifies the proverb that "Birds of a feather flock together." This peevish temper makes it shun even the proximity of its unobtrusive mate, who wisely keeps aloof and, from a distance, takes silent pride in the vocal attainments of her enchanter. If, by inadvertence, she comes too near her lord, he forgets all codes of chivalry and does not even hesitate to give her a sound chastisement.

The only season, when the Shama does not dislike the company of its mate, is when instinct obtains mastery over its temper in the mating period.

Nests and Eggs

It mates during April and June, and the female rears up the brood. Hollows in trees or stumps from two to twenty feet from the ground are selected by it for nesting, and sometimes she takes advantage of holes made by other birds. She stuffs up the hollow with dry leaves about three inches thick, and makes upon this bed of leaves, a loose nest of twigs and grass. The eggs laid by her are usually four in number, rather small in size, and ovate in shape. The ground colour is dull greenish, very often a pale sea-green. The whole is densely freckled with rich brown, thickly mingled with dull purple.

If there is any bird which repays the care bestowed on it, it is the Shama. Its rich coloration, bold and vivacious movements, powerful and melodi-

Cage-life.

ous voice and unlimited power of mimicry—all combine to make it the most desirable subject for the cage or the aviary. Though in India this bird has received the attention of bird-lovers from time immemorial, no one seems to have studied it from an avicultural view-point. We know little of its wild

life; we in India knew as little about its life in the cage till Europeans took up the study.

The Shama is one of those birds which in a free state shun all intimacy with man. But once caged, it seems to forget all antipathy towards him and becomes the most lovable pet. It never pines for its loss of liberty; and its easy and cheerful life indicates that it fully appreciates the love and care of its protector. If hearty cheerfulness conduces to long life, it is no wonder that the Shama stands a life of bondage so well and so long.

When accommodating the Shama, it should be remembered that it is very restless. It is always frisking about with its tail working up and down. It should have sufficient space inside the cage; otherwise its continual tail-play will injure that beautiful appendage of its graceful person. While introducing it into the aviary, it should be kept in mind that this bird, however tame it may be, has a wonderful combative temperament. The presence of another Shama serves as a red rag to a bull. It never condescends to accept others of its kind as chums and seems to think that the latter are there to be its uncomplaining fags. When in a warlike mood, its healthy optimism would even lead it to give battle to its keeper, if the latter were to enter the aviary without the conciliatory dish of mealworms. It carries its bureaucratic aloofness to such an extent that it would at first refuse to chum up with a female Shama, if introduced into its dwelling. The male does not seem to be at all anxious for a feminine companion. You can never thrust a female Shama near a male without a lengthy introduction. The female, knowing well the tyrannical temper of the male, will at first shrink in fear. Both should at first be kept in different cages inside the same aviary. Occasionally they may be let loose. At first there is sure to be trouble, but the male will begin to tolerate the female gradually, and may even mate in the long run.

Indian experience has seldom recorded any instance of the Shama breeding in captivity. A couple of years back I noticed a pair trying to build a nest in the hollow of a stump inside an aviary of the Calcutta Zoological Gardens, but nothing came of it. A pair of Shammas in the aviary of Mr. G. C. Mandal of Calcutta built a nest and hatched their young which, however, did not survive long. But we find mention of several instances of the Shama having bred in captivity in England. In this direction, the observations of Mr. Reginald Phillips are of great value. The female Shama seems to take the initiative in building a nest. Not until the male is thoroughly satisfied as to her earnestness does he respond to her silent appeal. In selecting materials for the nest the female shows much discrimination. In one instance, it carried dead leaves of ivy and Euonymus, while it studiously rejected those of rhododendrons. It chose straw and the finest hay for the inner lining of the nest, but never looked at moss and hair. The period of incubation seems to last for about eleven or twelve days. It is only when the nestlings come out that the keeper will feel the greatest difficulty as to food. While in ordinary times the Shama would take to all sorts of artificial food, it refuses to eat anything but insects at this time. The keeper will thus be hard put to in maintaining a sufficient supply of live grubs both for the chicks and the parents. A regular supply of mealworms and cockroaches should be kept up at this time. The mealworms may be given whole and need not be cut up into pieces. The capacious throat of the young bird can receive whole cockroaches without the least danger of suffocation. In India we hand-rear captive nestlings with *Satoo* made into soft paste with water, and a few grasshoppers. It is interesting to note how the parent bird tries to keep the fact of its nest a secret. In your presence it will never go straight to its nest, but will make a show of stopping at different places before it finally enters it. The Shama is very careful about sanitation, and the

male may often be seen carrying the excreta and dropping them at places farthest from the nest. When the young are considered able to fly, the mother-bird gives them a preliminary course of training by supporting them from beneath, after shoving them off a perch. As soon as the aviary-bred nestlings attain their adult plumage, the question naturally arises as to the propriety of in-breeding and even trying any experiment of crossbreeding a Shama with an English bird.

In this country it thrives well on *Satoo* prepared with boiled ghee, grasshoppers and a few maggots. In England it is given cockroaches, mealworms, gentles, ant's eggs and the yolk of hard-boiled eggs. Pieces of raw meat are also given, but this should be sparingly used for too much of this food may bring on diarrhoea. Ordinarily the Shama does not require any great attention. But at the time of moulting, careful watching and feeding are necessary. For then it is susceptible to a kind of warty growth on the legs and feet and just above the eyes. It should be carefully guarded against cold and draughts during the period.

Its song loses none of its charm in confinement. Besides its usual song, it has a habit of uttering a few set phrases over and over again, pausing after each utterance. These repetitions are rendered in the vernacular as "Gopeeji rojee bhejo" (Send us our daily bread, O Gopiji). These sounds are repeated a great number of times and then suddenly changed. Its imitative faculty knows no bounds. It can mock any bird to perfection and can faithfully render the voices of cocks, crows and kites. Even the female Shama is not altogether devoid of song. My own specimen sings as beautifully as the male and repeats the above-mentioned set phrases. It is no wonder, therefore, that in some countries the bird is called "Hundred-Tongued."

In India the Shama is housed in the cage, which is generally kept covered. But the aviary with plenty of space, air and light is the best place for keeping it. It may be rough

in its dealings with its own kind, but it seldom gives trouble to others of the avian community. If you care for its cheerfulness you should always provide for the luxury of a bath, for this bird is inordinately fond of a dip in water. It is curious that if there be two male Shamas in the same aviary, none would even bathe. Because a bath means wet plumage, which means damaged armour to a bird, and a wet bird succumbs easily if attacked. In one case it cost a Shama its life for unwisely bathing in an aviary where it had a pugnacious companion.

The Shama is easily available for purchase all over the country. Birds caught young in the Terai are brought down in numbers to Gorakhpur and Monghyr to be hand-reared. These birds take to cage-life easily; but those from Midnapore, generally caught while adult, very often pine away in captivity.

The Shama's outward appearance is beautiful and striking

if not gaudy. The head, back and throat

Coloration.

with the neck and breast are black with a splendid gloss throughout.¹ All the underparts are a rich bright chestnut except the thighs which are white. The rump and the upper tail-coverts are white; and during excitement when the bird puffs up its whole plumage, the downs on these two parts show conspicuously in two fluffy patches of snowy whiteness. The wings are dark brown and the primaries edged with lighter brown. The tail of the Shama is a very important part of its anatomy inasmuch as the length of the tail gives to this extremely graceful bird much of its grace. The central tail-feathers are the longest, while the lateral are graduated, which means that they gradually become shorter on both sides. The two pairs of central tail-feathers are completely black, while the others are white at the end, the white increasing gradually on the outer feathers.

¹ I have, however, noticed Shammas with chestnut streaks just above both the eyes—a thin straight line elongated bothways towards the nape and the mandible but not reaching these parts.

The basal end is always black. The line of demarcation between the black and the white is drawn in an irregularly slanting direction.

This pleasing coloration is denied to the less assuming female Shama, in which black is replaced by slaty brown and chestnut by rufous. The female birds of Tenasserim are often darker than their Indian cousins.

The bill of the Shama is slender, compressed and black; its legs are of pale flesh-colour, its claws light horn and eyes deepest brown.

The baby Shama is dark brown in its upper parts with fulvous spots on the feathers and wing-coverts; underneath, it is pale rufous with brown mottlings on the throat and breast. The colour, however, varies a good deal in young birds.

The usual length of the bird is eleven inches, the female being smaller by an inch in the tail.

SATYA CHURN LAW



PHEROZE SHAH MEHTA

PHEROZE SHAH MEHTA AND HIS TIMES

I

The demand for political biographies has kept pace with the growth of political literature in India. But in all our copious literature, we have hardly a striking biography in the sense in which men of letters in England and France have honoured their men of affairs. May be we have no commanding literary talent to do justice to our men of action: the cynics may retort that there are no commanding statesmen fit for such honours. The truth is, few Indians have had anything like the opportunities of European statesmen to direct the energies of their nation or initiate great movements from their position of trust and responsibility. Perhaps within the limits of their opportunities, the pioneers of political reform in India have played their part with distinction. When we have developed that beautiful blending of culture and politics, when we have created a truly national literature, we shall be able to perceive in their proper perspective the place and work of the Eminent Victorians in India. What odd corners of recent history will be illuminated by an intimate study of the life and career of men like Dadabhai Naoroji and Justice Ranade! Could the history of British India in the last four decades be ever complete without a record of the resounding words of the early congress-men who set the standard of public life in India?

We propose in the following pages to recall the more salient features of a crowded and eventful career which for forty years continued to exercise a profound influence on the Indian polity and touched the life of the nation at many points. Sir Pheroze Shah's life¹ was coterminous with the

¹ *Sir Pherozeshah Mehta: A Political Biography.* By H. P. Mody, 2 vols., pp. 698. The 'Times' Press, Bombay, 1921.

fortunes of two generations of his countrymen and it is but fitting that the third generation should ponder over the aspirations and achievements of the pioneers of political reform in India and profit by their experience. Mr. Gokhale used to say that his generation had to be content with serving the country by its failures, and he generously left to posterity to reap the fruits of its labours. If this is true of all pioneering enterprises, Mr. Mody has done an invaluable service in tracing the physiognomy of a most vigorous and fruitful period of our history, and recalling to us how the giants of the Victorian age worked in faith and patience and paved the way for the progressive realization of responsible government in India.

The Victorians in England in spite of sneering criticisms of their self-complacency, still dominate the world by a certain breadth of humanity and adventurous idealism. A generation nurtured on the writings of Tennyson, Ruskin, Mill, Darwin, Spencer, Huxley and Matthew Arnold and a host of political and social philosophers was inspired by a sure social purpose and it is no wonder that they had their votaries in distant India where the genius of English literature created a profound revolution, silent albeit far-reaching, in the thoughts and ideals of the immemorial East. Nowhere has the contact between two great cultures been productive of more beneficent results. And among the first band of English educated youths in India we have to seek for the genesis of the great political unrest which is making such a headway in the turbid waters of Indian life.

II

Pheroze Shah was one of earliest and most finished products of the Bombay University, then under the inspiration of the great educationist of Western India, Sir Alexander Grant. After the usual school course Pheroze joined the Elphinstone College where he was distinguished as "a keen

and diligent student, particularly fond of History and English literature" and "endowed with a mind of unusual capacity." His personality we are told was striking. "Though of little more than medium height, his strong and handsome features and broad shoulders lent considerable dignity and impressiveness to his general appearance." These he retained to the last. A brilliant scholar, he soon became the favourite of Sir Alexander who was so impressed with one of his essays that he ordered it to be preserved in the archives of the College. He was no less marked in the cricket field. "He seems to have played in a characteristic fashion, never knowing when he was defeated"—a trait which continued long after he left the playing ground for the more complex battle of life in the Senate, Corporation, Congress or Council. In 1864 Pheroze Shah passed his B.A., and was awarded the *Dakshina Fellowship*. He had also the honour of an interview with Sir Bartle Frere at the Government House. A few months later, at the instance of Sir Alexander, he obtained the benefits of a Fund instituted by a Parsi philanthropist, 'to enable five natives of India to proceed to England for the purpose of qualifying themselves for practice at the Bar in India.' As a special grace he was permitted to appear for M.A., within six months after passing the B.A., and Pheroze justified Sir Alexander's confidence and became one of the first M.A.'s of the Bombay University. Pheroze Shah sailed for England with Sir Alexander in December, 1864.

It is interesting that the Committee's choice for Bengal happily fell on W. C. Bonnerji—a singularly intelligent and far-sighted leader who was to preside over the deliberations of the first Congress at Bombay. The friendship formed on board the steamship continued to the end of two lives and the two became the leaders of the bar and of public life in their respective provinces, often working in harmony in the common interest of the country. Accompanying them was another Elphinstonian, Mr. (now Sir) Hormusji Wadya, one of the

leading lights of the Bombay Liberals. On the eve of their departure their fellow students at the college presented them with a farewell address—an unpretentious document which bore the names of many who in after years attained to eminence in various walks of life. Among the signatories it is interesting to find such names as Mahadev Govind Ranade, Bal Mangesh Wagle, Rahimtulla Mohamed Sayani, Goculdas Kahandas Parakh—names dear to all familiar with the history of the Congress, and indeed of India's struggle for Self-Government.

It is unnecessary to dilate on Pheroze Shah's habits of life and study in England which were as marked and brilliant as could be expected. "When you are in Rome do as the Romans do" is a maxim that young Pheroze carried probably to excess. He was certainly the pink of fashion in the fashionable society of London and Paris and the trace of lavender civilization and the passion for sartorial extravagance persisted to the end. But everything was subordinated to that one end towards which his whole life was converging. With him as with Gokhale love of country so filled the heart that everything else was of little moment and he laid all his gifts and accomplishments at the altar of India. For already in London, the nerve centre of the Empire, the great Dadabhai Nacroji was embarking on a remarkable political career. The simple austerity of his life and his touching devotion to the land of his birth was a source of inspiration to all who went to England. His home became the centre of the young hopefuls from India and around the illustrious patriarch gathered all the talent and energy of awakening India. They were gifted men destined to leave the impress of their personality on the country.¹

¹ "Jamssetjee Tata, after many vicissitudes of fortune, lived to become a great captain of industry, and the pioneer of India's industrial awakening. Mun Mohun Ghosh distinguished himself as a lawyer and politician during the comparatively short span of life that was allotted to him. Budrudin Tayabji enjoyed an immense practice at the Bar,

Though Pheroze Shah was thrown largely in the society of his own countrymen he was by no means confined to a narrow circle. He was keenly interested in the broad currents of British politics and he came to know some of the distinguished figures in English public life, like Lord Shaftsbury and the Duke of Argyle. Cobden and Bright and Gladstone were breathing a new life into the political controversies of the day and he drank at the fountains of pure liberalism. Nor was he unfamiliar with the teachings of Carlyle and Ruskin and Mill which shook the ardent minds of the nineteenth century with the passion for freedom and truth. And then the message of Mazzini and Victor Hugo—who could miss the inspirations of these powerful minds of the Victorian age? We can trace the influence of this liberal and cosmopolitan outlook in his paper on “The Educational System in the Presidency of Bombay” read before the East India Association prior to his departure to India. The spirit of these times is so completely at variance with that of ours that we may not endorse Pheroze Shah’s simple division of “lower” and “higher” civilizations; but there is no doubt that his plea for rational and critical culture in preference to unquestioning submission to old world dogmas is now the corner stone of modern educational methods.

III

Pheroze Shah sailed for India in September, 1868, after four happy years of crowded experiences—years in which he laid the foundations of a long and distinguished public career, a career equalled by few¹ and surpassed by none, with the possible exception of Dadabhai. It was on his way home

rose to the Bench, and carried with him there the qualities which had given him an honoured place among the leaders of the people. W. C. Bonnerji became a lawyer and a leader of unquestionable eminence, and his massive personality lent distinction to the public life of Bengal.”

¹ Sir Surendranath Banerjee and Sir Dinshaw Wacha are among the few other publicists with an equally long and meritorious record.

that he made the acquaintance of that great and good man, Sir (then Mr.) William Wedderburn who then held a high office in India and who was later to be so intimately associated with Pheroze Shah and other Congressmen in the service of the country of his adoption.

From the day he returned to Bombay he became unconsciously, yet inextricably, linked up with the fortunes of the city and indeed with the civic life of the nation at large. For forty years there was hardly a movement for the advancement of his countrymen with which he was not prominently connected. Pheroze Shah was a brilliant lawyer and his practice was at once growing and extensive. He had steadily established his reputation in the moffusil courts and had won many triumphs. In sheer forensic skill and debating power he had hardly a compeer. And yet it would argue a lack of the sense of proportion if we stop to consider his legal triumphs. It is enough to say that he won the unstinted admiration of such legal luminaries of the time as Telang and Ranade. His victories at the Bar have almost been overshadowed by the blaze of his achievements in public life. In the latter then we have to seek for his true laurels. To the end, he retained the independence of his vocation and though he was more than once threatened with judicial honours he stuck to the Bar with characteristic pertinacity, while one by one his distinguished colleagues were snapped off "to fresh fields and pastures new."

"Budrudin Tyabji got lost in the ever increasing volume of briefs; H. A. Wadia winged his way to Rajkot to earn wealth and fame; Linnji Banaji accepted a subordinate position in the High Court; C. M. Cursetjee got absorbed in the moffussil judiciary; 'Dady' Cama returned to London to take charge of his father's business; Bal Mangesh Wagle went to Baroda as Chief Judge in the wake of Dadabhai Naoroji appointed prime minister of the Gaekwad."

Later we find the incomparable Telang and Ranade slip to the Bench of which they became such worthy ornaments. But Mehta was inexorable.

IV

These were also years of political apprenticeship. Soon after his return from England was started the Bombay Branch of the East India Association of which he and Wagle were appointed Secretaries. The first political activity of this new institution was to organise a suitable testimonial to Dadabhai Naoroji in recognition of the eminent services he was rendering. To this pleasant task Pheroze Shah applied himself with reverent zeal. A handsome amount was collected and presented to the Grand Old Man in July 1869 "and it was entirely characteristic of the man that, poor as he was, he devoted the whole of that sum later on to the furtherance of the causes which were so dear to his heart."

Pheroze Shah's discourses before the Bombay Branch of the East India Association deserve a passing notice. It was here that he made those exciting speeches of his days of political apprenticeship. His paper on the Grant-in-aid System (December, 1869) and his defence on the Competitive System for the Civil Service (April, 1870) were subjects of acute controversy in which he rubbed shoulders with Wedderburn and Ranade. Pheroze Shah boldly seized the fundamentals in either case and it is refreshing to follow his arguments in the light of subsequent history. There is neither imagination nor statesmanship in the government's policy in Education or the Public Services, and we find the vehement advocate of higher education and of the superiority of Competition over Selection disillusioned in thirty-five years.

It is not, however, in studied dissertations, thoughtful and scholarly as they were, that we look to the real power of Pheroze Shah among the public men. It was in his impromptu speeches, inspired by the fire of the occasion that we find him at his best. His commanding personality, the courage and independence of his mind, the vigour and vivacity

of his spoken word that took the audience by storm. One such occasion presented itself when the Volunteer Movement was started in 1877. It was the time of the Russian scare and the Government was anxious to strengthen the military resources of the country by the formation of a Volunteer Corps from among the European section of the population. A public meeting in support of the movement was held in the Town Hall on 30th June, 1877, over which the Governor, Sir Richard Temple presided. After the resolution for the formation of a European Volunteer Corps was moved and seconded, the President asked formally whether any gentleman desired to address the meeting. What was the surprise of the Governor and his colleagues around him when up rose Pheroze Shah and made a blunt speech protesting against the whole procedure! He argued:—

“If the European inhabitants of this town had convinced themselves of the necessity and desirability of forming a volunteer corps among themselves, it was certainly open to them to have called a meeting of their own people, and to have taken such steps as they might think fit to carry out their project. But I must admit that it seems to me extraordinary conduct on the part of the promoters of this meeting to try to do this in the presence of all the inhabitants of the town. It seems to me, and though I say it with regret and diffidence I think I should say it boldly, that the native inhabitants of this town, when a proposition of this sort is laid before a public meeting of the inhabitants, are called to attend simply, if I may be allowed to say so, to assist at passing a vote of want of confidence in themselves. A proposition of this kind to a public meeting of the inhabitants of Bombay is simply asking the native classes to assist at their own execution.”

Telang followed with an equally brilliant and convincing blow at this blatant exhibition of racial discrimination.

In fact, the reactionary administration of Lord Lytton provided ample scope for widespread discontent and roused the forces of popular indignation to white heat. The passing of that measure—the Vernacular Press Act—in the teeth of unmistakable opposition has continued for forty years

to add to the bitterness and acerbity of political agitation in India. Initiated by a telegram dated the 19th March, 1878, from the Viceroy to the Marquis of Salisbury, the Secretary of State for India, it was passed the very next day after the farce of a Council meeting. It seems incredible that any Government should have rushed any Bill in such haste! Pheroze Shah and his friends kept up a sustained agitation and it is a remarkable illustration of his judgment, that when in 1910 Gokhale acquiesced in the "Press Act" in face of overwhelming evidence the far-seeing leader replied: "Government had never listened to the advice of the leaders of the people on matters of policy, and when it came to forging repressive legislation they wanted the latter to share the responsibility and the odium. It was a great mistake, therefore, on the part of the Indian members of the Council to support the Press Act."¹ It is sad to think that Pheroze Shah is not alive to see that Act repealed.

To return to the days of Lord Lytton. The coercion of the press coupled with that other perpetual tyranny of Lancashire over the fiscal policy of India²—found in Sir Richard Temple, the vigorous and ambitious Governor of Bombay a strong supporter. Pheroze Shah inspired the public protest against any memorial to the reactionary Governor and characteristically plunged into the controversy. In fact Pheroze Shah moulded and guided public opinion in the Western Presidency and his influence and authority in Bombay were unrivalled notably in the civic life of the city to which we must now turn.

V

An ardent Bombayite, Pheroze Shah identified himself with the fortunes of the City with unsparing energy and

¹ Mr. Mody's Life of Mehta.

² For once a strong and honest Secretary of State like Mr. Montagu refused to interfere with the fiscal fortunes of India to feed the avarice of British merchants.

devotion. In the seventies of the last century when the Municipality was no more than a name and Bombay herself was an unrecognizable heap of huts and houses intervened with narrow lanes, Pheroze Shah was a pioneer of municipal reform. "The proposals he put forward and which were ultimately embodied in the Act of 1872, reveal a political sagacity and breadth of outlook, which for a young man of twenty-six, may well be considered astonishing." Pheroze Shah was an indomitable fighter and beneath an exterior of impenetrable dignity and grandeur of manner there was something of the bull-dog temper, proud, domineering and passionate. Mehta was apt to be a trifle too masterly in municipal matters as in the caucus over the Battle of the Clocks and in the virtual prize-fighting for Presidentship in the year of the Royal visit. Like all truly ambitious men he was human to a fault and he could give as well as receive knocks with such evident delight in action that his enemies even called him "ferocious." The fact is he was impatient of all incompetents who were really afraid of him. We have not the space to refer to the part he played over the Crawford agitation and the successive stages through which the Corporation had undergone until it took the final shape in the Act of 1888. The reader may further be referred to the glowing and picturesque pages of the *Bombay Municipal Government* by another veteran Bombayite and life-long friend of Sir Pheroze Shah,—Sir Dinshaw Wacha. For over twenty years Pheroze Shah fought indefatigably and sometimes even "ferociously" for the fulfilment of his dreams of a model municipality; and only the other day His Royal Highness the Duke of Connaught bore his personal testimony to "the indelible mark of genius impressed by the late Sir Pheroze Shah Mehta," upon the municipal constitution of that city. Well might he be called the "Uncrowned King of Bombay." For he of all our public men was an ideal citizen even as the late Chamberlain with whom he had many traits in common, was an ideal citizen

of Manchester. Pheroze Shah had ample reward for his labours for his grateful fellow citizens returned him again and again to preside over the premier corporation in India; and he had the honour of welcoming the Prince and Princess of Wales in 1905 and again in 1911 when as King and Queen Their Majesties came to India to hold the Imperial Durbar at Delhi.

VI

On the enlargement of the Councils in 1892, the first non-official member in all India to be elected to the Reformed Legislature was Pheroze Shah Mehta. At a meeting of the Corporation held on the 4th May, 1893, on the motion of Sir Jamestjee Jeejeebhai, seconded and supported by Yajnik and Wacha, Mehta was unanimously recommended. When the first meeting of the Council met at Poona on the 27th July, 1893, there were among his colleagues his old friends Ranade, Naoroji N. Wadia and Chimanlal Setalvad. "The right of interpellation and discussion of the Budget conceded for the first time was exercised by them with a freedom and knowledge, which must have silenced those scoffers who held the representative principle in contempt."

But it was in the Supreme Council that he evidenced those qualities of leadership that were at once the dread and confusion of his enemies. He introduced in fact a new spirit into the Council, enlivening the debates with a wealth of argument and dialectical skill that were the envy of his official colleagues. On the numerous questions that came up before that body "he spoke with an ability, fearlessness and mastery of argument which delighted his many admirers all over the country" but officialdom was furious at the change of tone and temper in the opposition which he engineered.

Pheroze Shah rubbed shoulders with such distinguished civilians as Sir Evelyn Baring (afterwards Lord Cromer), Sir William Lee Warner and Sir Antony Macdonnell; and he took a leading part in all the debates and decisions of the Government. But it was left to Sir James Westland to speak the mind of horrified officialdom at the irreverent and almost cynical exposure of its narrowness by a vigilant and invincible critic. His petulant outburst may still be recalled with amusement. It was a novel experience for official hierarchy. It winced under the touch of sacrilegious hands and mightily did Sir James quail at the new spirit in the Council. Little did he know that it was but an unconscious tribute to the commanding talent, and undoubted authority of Sir Pheroze Shah—a trait so nobly followed by his successors in Council like Gokhale and Sir Rash Behary in the years to come. It is impossible in this brief review to refer to all the contentious debates in which he took part: but whatever the actual achievements of the non-officials in Council may be there is no doubt that Pheroze made it a power to be reckoned with. Who does not remember his sensational exit from the Bombay Council followed by all his non-official colleagues? Mehta carried his right of revolt into the very precincts of the Council Chamber to the dismay of the officials.

VII

We must now pass on to an yet more fruitful period of Pheroze Shah's public life. We have said that Mehta had played a striking part in organising public opinion in Western India for over a decade. As yet intermittent and spasmodic, that opinion was growing in volume and intensity as a blundering bureaucracy continued to feed it with ever-increasing causes of complaint. We have seen how Lord Lytton fanned

the flame of public indignation by provocative measures. The situation quieted down when Lord Ripon came out to India as Viceroy on the return of a Liberal majority under Mr. Gladstone. Faith in British justice seemed for a time to have been restored, when it was found that even the best intentions of Liberal statesmanship were unavailing in the face of the clamour of the Services and of the Anglo-Indian community over the ill-fated Ilbert Bill controversy. Lord Ripon's sympathy with the Indian standpoint provoked the bitterest animosity of his countrymen who threatened to non-co-operate with the Government if they should persist in their course of belated justice. The Viceroy was treated with open contempt and those who are familiar with the outcry raised by the European Association during Mr. Montagu's last visit to India can, with an effort of imagination, picture something of scenes enacted by Anglo-India in 1883. But the lessons of that agitation were not lost upon the Indian leaders. They realised, more than ever, that success lay in vigorous and systematic agitation.

Thus on the advice of A. O. Hume the Indian National Congress assembled at Bombay for the first time in December 1885. Seventy-two intellectuals of all denominations met under the presidentship of W. C. Bonnerji—social and political reformers from Bengal, Madras and the Deccan.

Among the first group of Congressmen were the pioneers of political agitation in India—Dadabhai, Ranade, Telang, G. Subramania Iyer—all inspired by the noble example of Britain's constitutional struggle for freedom. The story of the beginnings of this great institution must be read in the eloquent pages of Babu Ambika Charan Mazumdar's monograph on *Indian Nation & Revolution*—a book which traces the progress and development of a great organisation designed to focus public opinion, to facilitate the governance of India on democratic lines. Pheroze Shah was among the batch of first Congressmen and we find his commanding authority in its

councils. As the outstanding figure in the public life of Western India he was accorded the privilege of welcoming the delegates to the Bombay Congress under the presidentship of Sir William Wedderburn. Soon after what was known as the Bradlaugh session, a deputation consisting of Messrs. George Yule, Mun Mohan Ghosh, Sharfuddin, J. E. Howard, Pheroze Shah, Surendranath Banerji, R. N. Mudholkar, W. C. Bonnerji, Eardly Norton and Hume visited England to press upon the Parliament and the British public the urgency of political reforms. Mehta presided over the Calcutta Congress next year and henceforth his authority was unrivalled in the Committee, and year after year in successive sessions of the Congress he was the power behind the throne. Meanwhile the regime of that masterful Viceroy, Lord Curzon, who cut Bengal in twain and explained away the Royal Pledges as scraps of paper threw the country into a paroxysm of rage and Pheroze Shah's part in organising the opposition was second only to that of the veteran leader of Bengal—Sir Surendranath Banerji. In 1904 he was again appointed Chairman of the Reception Committee to welcome the Bombay Congress over which presided the late Sir Henry Cotton. Next year on the crest of a great wave of Liberalism John Morley became Secretary of State for India; and Mehta and Gokhale took the initiative to press for the reforms for which the Congress had been agitating for years. But the Partition of Bengal and the repression that followed had undone all that sober statesmanship could have done. A band of young men under the lead of Tilak, Arobindo Ghosh and Bepin Chandra Pal broke in revolt against the traditions of the Congress and challenged the merits of constitutional agitation. A reaction set in and a spirit of despair and sullen resentment swayed a body of Congressmen who openly proclaimed that they had lost all faith in the pretensions of British justice. The Morley-Minto reforms made the cleavage distinct and the more fiery spirits of the Congress had already formed an extreme wing.

Only the presence of Dadabhai Naoroji saved the Calcutta session of 1906 from what might have been a wreck. A rupture was inevitable. But Moderates and Extremists alike determined to save the Congress and a temporary truce was made when the next Congress met at Surat (having changed its venue from Nagpur the stronghold of the extreme party). The story of the Surat split and the scenes of the session are faithfully recorded in Mr. Mody's book. An impartial witness, Mr. H. W. Nevinson, an English journalist who was present at the scene of the fiasco, immortalised the incident in picturesque words (which Mr. Mody quotes) in the columns of the *Manchester Guardian*. Thenceforth though Gokhale and other Moderate leaders fought shy of splitting, Pheroze Shah with his sure and unerring judgment in these matters distinctly urged a separate organisation which resulted in the framing of the New Constitution at the Allahabad Convention. A fictitious unity was thereafter maintained while the extreme wing continued to increase in numbers and in intensity. The presence of Mehta in the subsequent deliberations had a sobering influence. At the outbreak of the War the splendid outburst of loyalty to England kept up the unity of the Congress, and Mehta again lifted up his voice in defence of the Commonwealth. On November 5th, 1915, Mehta passed away. Meanwhile the Montagu reforms and the tragic story of Jullianwallah threw the country again into another and more gigantic agitation and made the cleavage between the Moderates and Extremists more pronounced and as yet irrevocable.

VIII

Any excursions into the realms of what might have been if Mehta were alive to-day will serve nothing but provoke a profitless controversy. It will not do to make of a National leader a party whip. But of this we may be sure that he

who stood by the Morley Scheme would not disdain to stand by Montagu's. In matters of principle his political *flair* was always sound. There is no doubt he would have voiced the indignation of the country over the Punjab tragedy and insisted on adequate reparations but it is no less certain that with his political sagacity he would not throw away an opportunity for his countrymen for which he laboured all his life. It is true that he once walked out of the Council followed by his non-official colleagues when the Government carried their point in the teeth of opposition. In this he showed the stamp of his character and conviction and his judgment on matters of policy was irreproachable as subsequent events have shown.

Mr. Mody writes with discriminative appreciation of his leader but he is no hero-worshipper. He has evidently taken John Morley for his model and he maintains throughout an austerity of tone and a breadth of outlook which does credit to him. As he modestly says in his Preface it is difficult to make a complete failure with a good subject. We may add that though Mr. Mody disdains to give personal anecdotes he has given a just estimate in a full-length portrait of his hero. Only on two occasions has he given anything like a good story revealing Mehta in his less austere moods: Once when he made a joke with a Mr. Bennett, the taciturn and recalcitrant member of the Bar, and the other in reply to a member of the Subject Committee who complained of his overbearing personality that he could not help it. But we cannot lay down this fascinating and luminous biography without a reference to His Highness the Aga Khan's judicious estimate. His Highness in the course of a thoughtful and brilliant foreword truly complains that the Government thoroughly misunderstood Mehta, and the reforms he advocated came thirty years too late. Too late, too late, is always the tragedy of Nations as in the lives of individuals. A stitch in time saves nine is not only a trite saying for the home but a

maxim of profound political wisdom for statesmen. Could England have forgotten the lesson of the United States of America? The recent 'Life of Kitchener' proves again that his generosity more than his valour saved the Union of South Africa. Look at Ireland¹ again. Parnell and Grattan and Redmond never dreamt of the republicanism of De Valera and yet they died in disappointment and England has reaped the whirlwind of Sinn Féinism and endless reprisals which pass for government in that ill-fated island. Of what avail is history if her lessons taught in blood and iron are unheeded? Should we pass again through the same fiery ordeal to learn the same lesson over again?

B. NATESAN

¹ The Irish Agreement has since been signed, but peace seems as remote as ever.

A PLEA FOR SOCIAL SERVICE¹

I undertook a second tour round some social service centres in Deccan, Mysore, Madras with the intention of collecting information of the different methods by which social service was being conducted in those parts of the country. I did so, to benefit the infant organization started in Calcutta under the name of "Women's Society of Social Workers"—with the knowledge gained from experiences and experiments of these other sister institutions.

When the idea first dawned upon me of introducing or rather inducing social service into the tenor of our women's existence—I did not foresee the array of formidable obstacles that would have to be spanned over, before any hopes of success could be expected, to be anything like being even encouraging! One is very often apt to be victimized in being made to forget that all is not gold that glitters in the first flush of an optimistic enterprise. However, one thing is good—that in spite of demolished enthusiasm, the embers of optimism do not die away completely, if it be born of wholesome purpose; it has more staying power and may revive, than the throttling action of pessimistic sulkiness, that just grips one with its tongs of failure and prevents any effort whatsoever of scrambling up to the lowest rung of success. I believe I just escaped being irrevocably victimized by either of these two extreme evils; for, if on the one hand, I did not perceive all the actual stiles in the way, I certainly did conjure up a number of them that I would have to swing over, as also on the other hand, set my jaws determinedly to get across without arguing hopelessly or hesitating. Its result is—I am

[¹ As the Secretary of the Women's Society of Social Workers the writer of this article visited different parts of India with a view to obtain a first-hand knowledge of the work being carried on by several social organisations.—Ed. C. R.]

still trying to establish the *raison d'être* of the Women's Society of Social Workers.

The scheme of the Society is one that eventually works out at forming an alliance between the sisters of India and that of the wide, wide world,—the bond of the consociation being, security of peace and happiness and insurance of an universal fellowship for the purpose of cultivating and developing the virtual qualities of one another.

Often and over again have I been told that I begin unravelling the idea from the wrong end and am prone to frighten away modest, otherwise-would-be sympathizers! In spite of the warning, I still maintain that I prefer to be deductive than being inductive. I like to seek the way and means of arriving at the goal—as a consequent effort of a projecting thought. The destination being preconceived, the plan and route would come next to set about realizing it. In this, the first move is to rouse the sympathy of the educated men, more especially women, to thoughts of bettering the standard and guiding the downcasts to a level of general uplifting, to make the supernatant class seriously realize how the effects of their apathy towards that submerged mass is merely a reflection on the calibre of the very class who deems it *infra dig* to evince any interest in the affairs of the derelicts. This very attitude of civic irresponsibility has decided for us a wholesale subordination, withholding our prerogative to be recognized as a nation capable of fulfilling its ordinary duties, civilized enough to claim uniform status and equality side by side with other modern nationalities. A nation is labelled civilized or uncivilized according to the conception, ideal and attitude of the *intelligentia* in regard to the condition of its contemporaneous state of depravity and destitution which, in the annals of all political history, exists alongside of it. The sign of progress and culture has been discerned by the sensitiveness of the former group of individuals, in their abhorrence to the preponderating ignorance and

pauperism in contrast with its own refinement. It has been found to express its aversion by forcible means of extirpating the causes of this derangement between man and its kind. As it has succeeded in its efforts to leaven this coarse invidiousness, the more successful an age of a nation—it is said—to have been and more has it been the indication of national progress and civilization. India is still treated as a minor ward, not yet having attained her discretionary years according to the verdict of the foster-parents! India is still chaperoned by a duenna—controlling the supreme question of all her *affaire de cœur*! True, she has begun to rage against this interference,—it is a hopeful sign of rallying self-respect—but what concrete proof is there to boldly put forward in justifiable condemnation of the malpractices on the part of a supercilious tutelage, conducted with an iron-hand, without needing the petulant criticism of a maturescent protegee or paying the slightest deference due to the opinion ranted in the air? Can legitimate defence be claimed to the right of self-assertion—by what earthly proof of efficiency? To extricate ourselves from this degrading position, how many men and women have given a shoulder to the wheel, to press forward the social changes necessary or made any attempts at revolving the ‘stick in the mud’ portion through imparting an educative force that might have vitalized, stirred and set in motion the dull heavy sunken load? We do not care to stoop to take any heed of, in the glamour of our vaingloriousness; but in doing so, we overlook the great secret and fact that this very deadweight of incompetency we carry as our auxiliary force, drags and keeps us down from such progressive aspirations as National Emancipation and political privileges.

What can we say to reprimand the irresponsibility evidenced by the menfolk, when they are found so complacently self-satisfied even as they glance most casually over the census returns without serious qualms when such appalling figures of the percentage of illiteracy meet their eyes, rebuking in the

language of inarticulate despair—the lack of the very rudimentary sense of civic duty ; and, yet one hears them talking of the Reforms, their Councils, etc., in easeful tones and reposeful manners ! In this, the twentieth century, we Indians who pride ourselves in being fit for responsible Government, and to be ‘an integral part of the British Empire’—do we command resources either to bring our adversaries to terms or to stand as an entity equal to that of the British Empire—allying ourselves with equal ability in the contemporary politics and social organism of British criterion. Out of a fabulous population of over one hundred and sixty millions male-kind, only a number of the 10 per cent. can—what is known as being literate in the census sense—read and write !

Out of that despondent figure of ours, a large slice of deduction has to be made, to make up what is defined as the *intelligentia* on whom devolves the function of wielding the Reforms by carrying with success the *vox populi* of 90% illiterates—of their individual constituencies, which I dare say, they feel proud to represent ! Executing them, through the farce of such an arbitrary bureaucratized machinery as the Councils ! Men who canvass for their election do so through very refractory impulses of self-interested motives primarily and charge themselves with the cursory duty of advising the Government on questions determining the requirement of a dumb populace that knows not to defend its own interests and thus remaining passive victims to the interference of another despot in its turn. The elected overseers of the constituency repose comfortably enjoying the scale of social elevation, totally indifferent as to the way by which he can acquire knowledge of the true conditions actually prevalent and requirements of his constituency. There is no effort at creating a fellowship between the Representative and his constituency. It is simply by a process of mechanical assertion—opposed to the idea of congenial reciprocity—that this mockery, this fiasco is continued. So much for the

luminaries fixed in the firmament of the Reforms Council. Now for a survey of the women's function.

We find only one per cent. literate in a total population of over fifty-three millions. With this statistics we stand self-condemned. Does it lie in the mouth of such an ignorant and unprogressed state to clamour for franchise? Are we ourselves not to blame for the tyranny we have exposed ourselves to in consequence of our own weakness and folly? We are to-day, what we have allowed ourselves to have been made—a degraded and unhonoured nation of women! We are treated contemptuously as a race because it had been possible to conquer it without resistance of mettle and found to yield every vestige of national pride to an abject cringing demeanour at the very first instance of defeat! Recent events, however, disclose the more healthy spirit of recuperation—it is now, while it is still aglow, that the impulses should be cast into a mould which will give shape to the destiny on which the structure of New India is to be raised.

It is my object to impress upon the women this conviction that in this architectural undertaking the women must execute into model and guide the progress of its fulfilment. There are parts of the construction which women alone possess the talent to successfully accomplish. Circumstances have so developed that special attention has been drawn to that very particular curve in which the relation between woman, her life and condition touch the mainspring of the nation's life. It has been the neglect of this that has put our country completely out of joint. The characteristic feature of the women of the country mirrors itself in the national image. So far as women influence the thoughts and control the moral element, she is the archetype of the nation's mind. It has been in the calumny of this vital organism that the tendency to national degeneracy has set in. It is, however, distinctively perceptible that the decadent epoch of Indian history, in which women had figured so miserably, is on the

decline. The sign of the times announces a stir within the women to rise in defence to the call of Young India. Now is the time to capture the spirit of the fast approaching social awakening. To my mind, polling-booths are not the birth-chambers of equality, fraternity and liberty. Its function is like that of the paraphernalia attached to the significance of university convocations where people seek the ribands and titles from a sense of vanity than necessity. To those anxious for public recognition, I want to ask how much they have assiduously studied the conditions or sought to befit their less capable sisters to enjoy the same privileges that they are scrimmaging for. What are their qualifications that would entitle them to be furnished with the right to vote? Do those ladies, with whom it is a sad, to be always in the hind of the European sisters pause to consider if they are sufficiently versed in subjects obligatory to the conception and attainment of *Franchise*? In the elementary principles of inevitable details concerning the controversies of human existence—in the treatises embodied in sociology, economics, legislature, affecting women especially, etc.? Women of European countries, adopting public life, take the trouble to acquaint themselves with the realities concerning life around them. They keep themselves in touch with the prosaic problems of labour and its laws, the housing, hygiene, sanitation and settlement of the working-women. They are equipped with facts, figures, datas, references, statistics, etc., in short they go through a thorough official training. They are fit to debate and claim the equal opportunities with men because they are equal to the occasion—whilst we loll in opulent indolence and lisp the ditty of the strong overseas movement conducted by strong women of character and learning. Have we up to now displayed any forethought and discrimination in our conduct of life with similar effectiveness as that of our Western Sisters, excepting in the mimicry of their fashion-plates! The half-a-dozen literary geniuses,

exemplified in attestation to our promising faculties is hardly a feasible mark of all-round proficiency on which to base the claim of suffrage. Verse-making and fiction-writing may be counted as ornamental supplementary accomplishments, but modernity emphasizes the need of practicality in action and knowledge of a specialized purpose from the women of to-day out in the public field to pioneer the solution of great and sombre problems facing their intelligence. The women's suffrage in the West has been won by the sweat of their brows! Would we care to achieve it by superficial and amateurish wiles? Wish for emancipation imposes the necessity for extreme efforts, involving immense strength in the motive power, by dint of which it could raise the evils founded on the social obstruction and iniquities of palæolithic survival and strike a mental current that would carry along the inconsistencies distasteful to the *recherché* intellect of the day.

Familiarity with the actual conditions in the field of reparation need specialisation. To reconnoitre the defects and deficiencies and to take note of the probable forces that might serve to strengthen the position requires a definite plan of work that can only be taken up by those willing to receive distinct training in the different departments of the leading problems characteristic of the country and confronting us at this critical juncture. Of these, investigations into social conditions, organisation of women, child-labour, the handicaps in the way of the successful development of industries suitable to women, and the probable facilities which may be applied to overcome them may be mentioned.

Industrial co-operation, labour legislation, investigation into the problems of housing the population of the low, rural and urban areas—cures of discomfort, distress and disease prevalent in those neglected areas of human habitation, its possible methods of prevention, treatment and precautionary measures, child welfare and protection, vigilance on juvenile

delinquents—there are thousands of ills requiring the panacea of well-regulated attention. It is a calling that cannot be dabbled in as a hobby; and unless and until we can take up the task with diligence in a systematic way, we cannot conscientiously take the cudgels on behalf of any responsible cause unless, of course, we do not mind being jeered at as quacks! The rivalry of our sisters in Bombay and Madras should be an incentive to us. They have given evidence of their practical dexterity and skill in managing public affairs, through their concentrated indefatigable activities, in the direction of practical social service rendered personally by women of position and intelligence, not only in the rôle of sinecures and munificent donors, but active workers.

The women of Bengal have a capital they make out of the *purdah* system for vindicating an inveterate lack of purpose. If Islamic despotism be the curse, as we say, that brought down the drop-scene on the cultural age and progress of Indian women—how can we justify ourselves any longer, when we learn that the original victims of that baneful imposition have challenged its infrangibility. The women of young Turkey, Persia and Egypt have unveiled themselves and ventured into the arena of the national enterprise. Bengali women with their laggardness in regard to higher pursuits, lie impassive in matters of serious import threatening the very existence of their country. Elaborate device to attain enfranchisement is merely a conclusive event. The immediate subject of attention should be to stir the sediment of age-long insensibility, incrassated with ignorance and unnational dross.

The idea of the Women's Society of Social Workers is to train up this group of women, who realizing the significance of gaining franchise will ably and with competency raise the women of India, to a representative footing, on equal terms of efficient partnership with their enlightened sisters, sharing the burden of the women's problems of the world.

A solid and subtle acumen has got to be cultivated to engineer the viaduct of emancipation, especially over such chasms, gorges and ravines as the age-worn ravages that have been wrought by undiminished volumes of superstitions and traditional indivertibility. Idealism alone, unsupported by concrete masonry of facts, is as futile as building a bridge of fancies to gain the castle in the air !

Service—systematic, regulated under realistic control and supervision—may reward us with freedom from the manifold trammels ; it is our lot to bear in consequence of our own feeble-mindedness and ineptitude to shake them off.

Service is the only legitimate platform where man and woman can meet on common ground, and be recognized as not only complementary parts of an ordinary relationship, but elevated to a level of comradeship in all human concerns. To create this possibility staunch loyalty to the cause oblivious of all egoistic impulses alone vouchsafes the notion of franchise without which it would spell disaster, extended spuriously and broadcast.

Let us—women of Bengal—show our *bonâ fide* by a probationary period of whole-hearted service and study—so as to excel with honour a well-merited freedom.

SREE MAYA DEVI

ABOUT ALGAE

"What *are* algae?" I have often been asked when, in reply to a question what I was looking for, I said I was collecting algae. If I had been collecting near the sea shore in England or Ireland, I might not have been asked any question at all, because there many people know very well what is meant by "Sea Weeds," and sea weeds are algae. But if in the plains of Bengal you scrape off some green coating from an old wall, or gather some greenish-looking soil from a damp place, or fish about in a tank covered by a green or bluish green scum, or—oh horror!—collect the green or brownish slime from a dirty, malodorous ditch: you may soon find yourself an object of the curiosity of a wondering crowd—and you probably know from experience how quickly wondering crowds collect in India, and elsewhere—and you must not take it too much to heart, if you hear low-voiced remarks concerning a "pagla saheb" or a "pagla babu," as the case may be. But at any rate you are not suspected in Bengal of evil intentions, as it happened to me in Asia Minor; for people there did not understand how anyone could gather specimens for purely scientific purposes, and their apprehensions were not allayed, until my Osmanly companion explained to them that I was a *hakim* and collected specimens for the purpose of investigating their medicinal properties. So a botanist may have to choose between the reputation of a *hakim* or that of a madman.

But let us return to our algae and consider them under three aspects: their scientific interest, their aesthetic value, and their economic importance.

The algae constitute a large division of the plant kingdom. Including the numerous fossil diatoms, the number of species certainly exceeds twenty thousand.

Among these algae we meet many unicellular forms. Such are the algae which, during the rains, form a green coating on damp walls, or those which form just now a deep verdigris-green film on the tanks of the Calcutta Maidan and in the suburbs, or those which during the hot season gather into a thick bluish-green layer on the water of many ponds, such as those on the Baliganj Maidan, and which, when the ponds are in the process of drying up under the fierce rays of the May sun, cover the sides of the ponds



Fig. 1.

with a deep blue stratum of billions of microscopic plant individuals.¹ This alga forms at present a film on many ponds in Calcutta

and its suburbs, imparting to the surface of the water a uniform verdigris-green tint.

Many unicellular algae form colonies imbedded in copious slime.²

From these one-celled forms we pass on to species consisting of single rows of cells, such as various forms of filamentous algae common in tanks and rivers.³



Fig. 2.

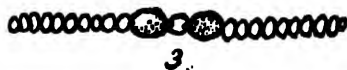


Fig. 3.

In others the filaments branch more or less copiously, like the interesting alga depicted in fig. 4, an alga which is

Fig. 1: *Clathrocystis aeruginosa*. Ponds and pools. "a", colony, b, single cells.

Fig. 2: *Gelosocapna*. Road slimes.

Fig. 3: *Anabaena indica*. Ponds about Calcutta.

probably co-specific with one growing in Florida, but which also has been observed recently in a nursery pond in Baliganj and elsewhere.⁴

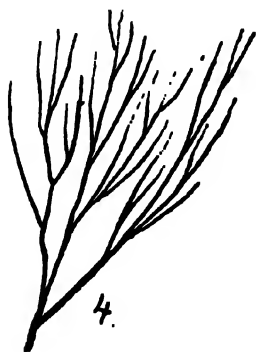


Fig. 4.

A further development consists in the formation of flat strata, which may be built up of one or several layers. Such, for instance, is the interesting alga described by Professor Bal in the *Journal of Science* of the Calcutta University, one of the few algae which grow parasitically, lichen-like, on the

leaves of a great variety of trees and shrubs, on those of the guava tree for instance.

Finally we arrive at algae which are branched in the most various ways, as is the case with the Charas and with numerous brown and red algae, most of them inhabitants of the sea. The stems and branches may be cylindrical or flat; the plants may resemble mosses or ferns or much-branched shrubs, or they may look as if possessed of stems, scales, leaves and bracts, thus resembling higher plants to a remarkable degree. Some of them attain gigantic proportions, particularly members of the natural orders Laminariaceae and Fucaceae. Such are species of *Lessonia*, the stem of which may reach the thickness of a man's thigh, whilst the leaves of *Alaria Fistulosa* attain a length of sixty feet and those of *Laminaria Bongardiana* are more than a yard in width.

Well known are the tangles which, drifted together in immense masses and floating by the aid of bladders, form the Sargasso Meadows of the warmer parts of the Atlantic Ocean.

Of great interest are the various modes of reproduction which are met with among the algae. We notice here the gradual transition from a purely asexual to the most

pronounced sexual reproduction. The multiplication by mere cell-division has already been referred to. In other cases part of an algal filament becomes separated and gives rise to an independent individual.

In the Oscillatorias a certain number of cells often escapes from the open end of a filament as a cylindrical body with rounded ends, a so-called hormogonium, and settles down in another place to grow out into another blue-green or brown thread.⁵ In other cases the protoplasmic contents of a cell

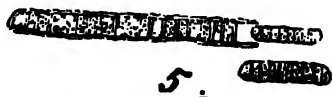


Fig. 5.

will surround themselves with a firm wall of cellulose and remain for some time in a dormant condition, usually for the purpose of tiding over seasons of cold or dryness. Again in other cases the protoplasm of certain cells may divide up into a number of microscopically small globular or egg-shaped bodies provided with exceedingly thin hair-like

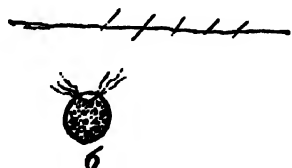
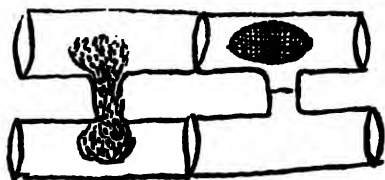


Fig. 6.

the body, called a swarm-spore, through the water, until after some time the spore settles down and sprouts out into a new plant.⁶

Then we notice the phenomenon of conjugation witnessed in the

various species of spirogyra so common in our ponds, jhils, and rivers,⁷ or in the beautiful desmids and diatoms.



7.

Fig. 7.

⁵ *Lyngbya arboricola*. On the bank of the Rain Tree.

⁶ Swarm spore of *Oedogonium*.

⁷ *Spirogyra utida*, part of two conjugating filaments.

From these either purely asexual or doubtfully sexual cases of reproduction we pass to those in which sexual reproduction is clearly exhibited. Ciliated swarm-spores, either of the same or of different sizes, after swimming about vigorously, meet and fuse together, after which they germinate.^a

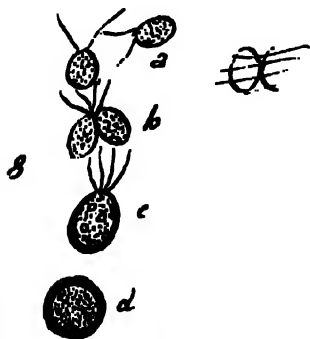


Fig. 8.

Most interesting is the sexual reproduction of the species of *Oedogonium*, which are found in fresh or brackish waters all over the world. In a number of these species some of the cells swell up to form the egg-cells or oogonia, whilst in other cells, often in different filaments, swarm-spores are formed which fasten themselves on to an egg-cell, surround themselves with a membrane and grow out into a minute plantlet, which opens by a small lid and discharges a swarm-spore through the fertilisation pore into the egg-cell, which then surrounds itself with a smooth or sculptured membrane and forms the oospore, which later on germinates into a new plant.^b

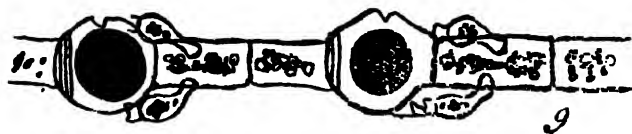


Fig. 9.

The subject of the development of sexuality will be treated in a later essay; it may only be pointed out here that it looks as if Nature had experimented with various methods

^a Copulating swarm spores.

^b Sexual state of *Oedogonium*.

of sexual reproduction during the course of the development of the large sub-kingdom of the Algae.

Whilst some of the branches of this sub-kingdom have stopped short of further progressive development, others have undoubtedly developed into more highly differentiated groups of plants, whilst others again have adopted a saprophytic or parasitic mode of life and given origin to the class of fungi.

One of the most interesting facts concerning algae is the spontaneous movement of a number of species. The *Oscillatorias* owe their name from their peculiar kind of motion. Under the microscope you see them often bending to and fro as if they, in quite an uncanny manner, were exploring their surroundings near their upper extremity; but you can also see them moving onwards under what with a higher magnification appears quite a respectable velocity. Such independent movement we witness especially in the one-celled *Desmids*, of which more than six hundred species have been described from the Lower Provinces, particularly from the Raniganj Coal-field, and the equally one-celled *Diatoms*. Of the latter we may refer to a particularly lively one which we frequently meet with in the mud scraped off from the surface of various Bengal filter-beds. We shall soon return to the *Desmids* and *Diatoms* in another connection.

This subject of what we may call voluntary movements leads as to the second part of our essay—to the æsthetic side of algological studies.

One of the most fascinating spectacles to watch under the microscope is the behaviour of the members of the family known to Algologists as *Volvocaceae*, a family which also from a purely scientific standpoint is of the highest interest. They consist of cells united into groups—algologists call these groups *coenobia*. Either all the cells, which are generally speaking ovoid or pear-shaped, or only those arranged along the surface of the colony, are provided with two hair-like

whips—called cilia or flagella—by means of which the colony moves about. In one of the simplest forms—*Gonium*—sixteen flagellated cells are arranged into a plate, which can be seen to rotate round an axis at right angles to the plate, performing at the same time a rocking movement. The colonies of *Eudorina* form hollow spheres of a gelatinous substance within which are placed, at equal distances, thirty two spherical green cells, each protruding two flagella, through exceedingly fine canals. The whole colony moves forwards, at the same time rotating round its axis, so that it presents the appearance of screwing itself through the watery medium. The highest state of development of the family is reached by members of the genus *Volvox*, after which the whole family is called. Here also the colony consists of a hollow gelatinous sphere, which may reach the gigantic size of a twenty-fifth of an inch; we may well call one twenty-fifth of an inch gigantic in a world where we usually measure things by a unit—called a micron—which is about a twenty-five thousandth of an inch. Now within that hollow envelope of *Volvox globator* are disposed between 12,000 and 22,000 single cells, the majority of which are purely vegetative. The *Volvox* colonies move similarly to those of *Eudorina*. But these things must be seen under the microscope, using living material, to be appreciated in its perfect beauty; pictures and prepared slides give no idea of the living, moving reality.

Other objects of beauty are found among the slimy tufts so common in ponds and rivers. Here we meet with numerous species of the genus *Spirogyra*, known even to the student of elementary botany. The cells are united into filaments, and each cell is traversed by at least one longitudinal spiral band containing the green colouring matter chlorophyll and numerous colourless spherical bodies; often the number of these chlorophyll bands in each cell varies between two and

four or even more. Fig. 10 shows a common Bengal species—*Spirogyra nitida*.¹⁰

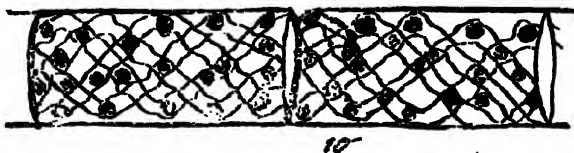


Fig. 10.

We now return to the Desmids. They are unicellular forms, each cell consisting in most cases of two distinct half-cells, as a rule marked off from each other by a median constriction. The variety of forms is truly astonishing. Some remind you of the new-moon, others of cog-wheels, some of twin-anvils, again others of microscopic jelly-fish, or you may meet with the prototype of the Star of India.¹¹ Some are smooth, others densely beset with minute warts, still others are provided with horns or spikes or innumerable thorns and prickles. A large number of them live singly, but you find them also forming long chains.



Fig. 11.

But for an infinite variety of forms and for beauty of the markings on their siliceous skeletons nothing in the whole plant-kingdom can beat the Diatoms. Generally speaking their external skeleton may be compared to a pill-box consisting of two end-surfaces, the valves, which often are bent over at right angles to form the "mantle," which is continued, directly or indirectly, into the lateral girdle-bands which fit one over the other. Within this general scheme we meet with an astonishing variety of forms. Diatoms either float in the water, forming part of what is called the plankton of ponds, lakes, or the ocean, or they attach

¹⁰ *Spirogyra nitida*. Bengal ponds.

¹¹ *Eunotium spinulosum*. Found in Bengal Filter beds.

themselves as ground-diatoms to the bottom of the various accumulations of water, as to stones or rocks or parts of other aquatic plants. They either live singly or they are united into colonies, which may resemble chains or star-like clusters or tiny barrels joined together endways by hooked couplings, or miniature barrels united by short drums fastened together by a sort of mortice and tenon joint as one sees it in modern machinery or they may bear a striking resemblance to colonies of polypes, or, when enclosed in cylindrical gelatinous envelopes, to much-branched tufts of lichens or filamentous algae. The markings on the siliceous skeletons are always of the most wonderful symmetry; in some species, especially those of centric design, the pattern consists of innumerable hexagons of absolute regularity. Among some of the most common forms we observe such as resemble tiny boats; others recall the pictures of insects or centipedes. Botanists who have neither time nor inclination to devote themselves to a specialistic study of the diatoms sometimes tease diatomists by calling them "diatom enthusiasts." But no one who has even superficially made the acquaintanceship with this fascinating subject can help becoming a "diatom enthusiast." Those who wish to acquire an idea of what wealth of beauty is hidden in the microscopic world of diatoms need only refer to the well-known treatise by the late Dr. Carpenter or the works of the great diatomist Van Heurck.

Another type of beauty is exhibited by the much larger Brown and Red or even Green Sea Weeds. They are mostly marine algae. Unfortunately for us who live in Bengal they live in clear water, and our friends living in Bombay, Ceylon or in the coast towns of the Malay countries have much greater opportunities for collecting in what rightly may be called submarine gardens. The rocky coasts of Devon, Cornwall, Ireland or the Channel Islands are well known for their wealth of beautiful sea weeds. The reader will find pretty

pictures of such sea weeds in Shirley Hibberd's little treatise entitled "The Sea Weed Collector."

"And what is the good of all this?"—some people will ask. There are people living in this world of ours who consider nothing to be good what is not good to eat or drink or what does not provide them with clothes or the various comforts of life. I have nothing to say to them. On the other hand, an inquiry into what is useful to mankind is perfectly justified. And further, there is no branch of what sometimes is called "Pure" Science that some time or other has not found or, at some future time, is not bound to find some useful application. The purely scientific researches of the great physicist Hertz, based on the mathematical investigations of Maxwell, led to the invention of wireless telegraphy, and the highly abstruse mathematical and not less skilful experimental researches into the structure of the atom are certain to result finally in discoveries of immense practical value. On the other hand, investigations into purely practical problem often open new avenues to purely theoretical research work.

To return to our algae! In some places in Upper Burma quantities of a species of *Spirogyra* are sold in the bazars as an article of food. A number of species of green, brown and red algae are used as food in Japan, and in Hawaii certain green algae which go by the euphonious names of *Limuele-ele* and *Limu pahapaha* are collected for similar purposes. The "Irish Moss" is employed in the preparation of jellies, and the "Bladder weed" or "Swine Tang" is used as a food for pigs. In Ireland a kind of sweetmeat even is prepared from a seaweed. An alga, the "Birds' nest weed," is gathered by swallows to construct their nests, and these birds' nests, being considered by the Chinese a great delicacy, form quite a respectable branch of commerce, and the finest sort fetches a high price.

Formerly sea-weeds were largely used in the manufacture of "Kelp," ashes rich in potash; it is this potash content

which makes of sea weeds a valuable manure. Bromine and iodine compounds are absorbed by sea-weeds from sea-water, and those algae thus become important sources of the elements bromine and iodine.

Of much greater use to mankind than those sea-weeds are the much smaller algae which form a considerable portion of what is called "Fresh Water Plankton." By plankton we understand the aggregate of plants and animals which float passively and often are driven by the wind, according to its direction, from one end of an expanse of water to the other; some of them are of some size, such as the *Tākāpānā* or the various species of *Lemna*, which often cover entirely our ponds; some others are just visible to the naked-eye, like some small crustaceans which sometimes appear in immense numbers in tanks or the backwaters of rivers; others again—and they form the majority—are microscopic algae and minute members of the animal kingdom. Under the influence of sunlight the green and blue-green algae decompose the absorbed carbonic acid and deliver quantities of oxygen to the water, in which they live, three times as great as could be absorbed by the water from the atmosphere directly during the same interval of time. During bright sunshine this evolution of oxygen is very rapid, and without this action of the algae the supply of oxygen to the water would not be sufficient to keep the organisms, including fishes, alive in larger numbers. A flourishing water flora is an absolute necessity for successful pisciculture. Fishes live largely on the smaller animals forming an essential part of the fresh water plankton, and these little animals again—many of them relatives of the *jhingri*—live largely on floating algae. Indeed, the economical value, as far as pisciculture is concerned, of tanks, *jhils*, and rivers depends on the fauna which serves as a food to fishes and consequently on the algae and those microscopic members of the biological province which forms a link between the plant and animal kingdoms.

An important question from a sanitary point of view is the question of what has been aptly called the self-purification of ponds, lakes and rivers. It is well known that such waters are often fouled by organic refuse matter and that notwithstanding that fact the waters may, after some time, become again clear and lose their offensive odour. This self-purifying operation is chiefly performed by microscopic animals and plants after sedimentation of the coarser impurities. The first to get hold of the impurities are putrefaction bacteria, the action of which results in the production of ammonia, acetic acid, sulphuretted hydrogen, peptone and various other organic compounds of complicated structure. These compounds are assimilated by plankton algae and other members of the plant kingdom. As soon as these have consumed the obnoxious substances they are swallowed by small members of the animal kingdom which in their turn serve as food to larger crustaceans and fishes. It may, however, happen that ponds and rivers are so overloaded with refuse matter that the sanitary agents referred to above are unable to fulfil their obligations and that in consequence of this state of things sulphur bacteria, oscillatorias and certain infusoria gain the upper hand. Some of these occur so constantly in contaminated waters that they can be used as indicators, the presence of which alone is a sure proof of the insanitary state of the water which has been subjected to microscopic investigation. In the process of self-purification the oxygen exhaled by algae plays an important part.

It must be noted in this connection that the total absence of refuse and other decaying matter would soon cause the disappearance of micro-organisms; such disappearance would cause the dying-out of the smaller crustacea and this again would lead to the elimination of most of the fishes.

Some of the blue-green algae, namely those which form thin films, are of considerable use in filter-beds, whilst others

which form a thick felt prove themselves an intolerable nuisance.

A detailed investigation into the Algal Flora of Bengal is being carried on in the Botanical Department of the College of Science, Calcutta University. The results of this investigation will be published in the *University Journal of Science*.

P. BRÜHL

The illustrations accompanying this essay have been drawn by my student and fellow-worker, Mr. Kalipada Biswas.—P. B.

SREE RADHA'S LAMENT

I long to see his face divine,
I wish I had a million cyne !
The twain I have—they vainly shine,
 By lashes dark concealed !
And thus my eyes—they still repine,
Condemn their Author's crude design,
 By such defect revealed.

The fish performing penance true,
Secured they have their lashless two :
Like penance let me strictly do,
 Their faultless eyes to gain.
Dissolved in bliss, so I may view
My Love's sweet face, to me e'er new :
 My hope, alas, is vain !

My lashes dark I would not mind,—
These eyes of mine, could they but find
The means this earth to leave behind,
 Through space their flight to wing.
Then nought would once their vision bind,
They would be blest beyond their kind,

They, like the lark, through heaven would fly,
Of grief they ne'er would heave a sigh;
But, like the bird, still soaring high,
 Flit through the skyey dome.
The nectar drink that falls from sky,
For which they ever hardest try,
 As through the earth they roam.

—*Anonymous Vaishnav Poet.*

THE LOVING DEVOTEE TO HIS BELOVED GOD

E'er since my birth I've gazed my fill
Upon thy peerless beauty's store:
These eyes of mine unsated still,
 Still yearn to gaze for evermore.

Through aeons long, pressed heart to heart,
In sweets of love our days have sped:
But mine is still the bitter smart,
 By those still felt whose hearts have bled.

—*Vidyapati.*

THE ROSE OF INDIA

ACT III; SCENE III

[*Scene.* A room in Jerusalem. Discovered St. Peter seated, Mary Magdalene, Salome, and several disciples in a group.]

St. Peter—

Greeting, beloved, who in our presence stand.
To our command obedient, shrinking not
From sacrifice of substance at the call
Of duty to the Church's common weal
And the relieving of the poorer saints:
Thereby yet greater blessing for yourselves
Obtaining, as you offer here your gifts.
Who standeth first?

A disciple—

Father, beloved in Christ,
A man of Cyprus, Barnabas by name.
Withal a Levite, who hath sold his land
And brings the price upon him.

St. Peter—

It is well.

(*To Barnabas*) May Heaven reward thee, brother, for thy gift
With eager-heartedness but ill content
Till thou with all thy gifts art dedicate
Unto a higher priesthood. Who is next?

Disciple—

Jason of Tyre, a merchantman of dyes,
Brings three years' profit.

St. Peter—

Greater profit still
Thereby securing, where no moth corrupts.

Disciple—

Next Lucia, Rhoda, Junia, Syntyche
Bring a month's earnings.

St. Peter—

Half to them restore.
Children, ye have our blessing. Who is this?

Disciple—

Carpus, a Cæsarean fisherman.

St. Peter—

Brother, I too was fisherman, and am.
One day thou shalt a-fishing come with me
For souls of men. What is thine offering?

Carpus—

Of gold and silver, master, have I none;
Such as I have I offer. 'Tis a stone
Found near our harbour by my little son.

St. Peter—

Is it not writ, the stone rejected once
Became the corner's headstone? Like of this
Ne'er saw I on the Galilean shore,
Nor can I reck its worth.

Disciple—

There stands without
Habban, a merchantman of India
From Gondophares' court but now returned.

St. Peter—

What is his business?

Disciple—

To deliver letters
From the Apostle, Thomas Didymus,
And tidings of his welfare.

St. Peter—

Bid him enter.
No messenger than he more welcome here !

Mary Magdalene—

O welcome, welcome to our waiting eyes
First messenger of one who far away
Yet moveless bides in praying hearts at home !

Solome—

Thrice welcome, if he bring the longed-for news
Of the Apostle's safety and his good health,
And of the spreading kingdom of our Lord.

(Habban delivers letter to St. Peter, who reads it aloud, standing.)

St. Peter (reading)—

Thomas, a servant of God and an Apostle of Jesus Christ, to the Saints which be at Jerusalem, Grace, mercy and peace from Him who giveth abundantly to His elect in all places, and also in this, where numbers of those that dwelt in darkness have, by the grace of God, and our ministry, been gathered into His fold and now hear His voice. Unto His gracious keeping we commit ourselves in this perilous time, when the wrath of the tyrant is upon us, and wolves threaten the flock. How long the shepherd may remain unsmitten, I know not—God knoweth. Should I to Jesus and His Resurrection have borne my last witness ere our faithful messenger can deliver this letter into your hands, be glad and rejoice greatly, for this cause, that the shedding of my blood hath watered the tree of Life planted here in the wilderness and waste places of the world. Pray for us, brethren, whether in the flesh or out of it. There salute you with me Xanthippus, a faithful brother, and all the saints that are in Narankot. Grace be with your spirits. *Amen !*

St. Peter—

In silence, children, let us trust them all
To the great Master Shepherd's tender care,
Where'er in God's wide universe they be. (*A pause.*)
What danger threatened, in what evil plight
Stood the Apostle, when he wrote these words ?

Habban—

Danger to life most grievous, Holiness,
King Gondophares, stirred with mighty wrath,
Had sent his royal guard to seize the person
Of that well-loved Apostle, unto whom
Came tidings of the approach of armed men.
Whereat, of others more considerate
Than his own safety, did the Apostle send
His sheep to shelter, and entrust to me
(Though fain to share his fate) his messages
And bade me bear them hither o'er the seas.

St. Peter—

Wherefore was Gondophares thus enraged ?

Habban—

Because the Apostle could not shew the King
The palace wrought, on which his heart was set,
Though charged to build it, and supplied the gold.

St. Peter—

Was not the gold returned ?

Habban—

Nay, Holiness ;
'Twas spent on works of mercy, which should build
(So said the Saint) his palace in the heavens.

St. Peter—

That may be, yet the earthly gold was given
To build an earthly palace, and the debt
Has not been rendered. Still the gold he gave
Is due to Gondophares. Heavenly goods
May not be marketed, nor yet be bought
With gold and silver, things corruptible.
Since Christ at greater cost redeemed our souls.
In this the Church's honour is at stake.
The gold unto the King must be restored.

Habban—

'Tis a great sum, no smaller, Holiness,
Than are thrice fifty talents—large enow
For a King's ransom.

St. Peter—

God will all provide.
Lo, at our feet the offerings made to-day,
Golden in sight of angels!—these can go
Unto the solving of the Church's debt.
Reckon their sum, if haply it suffice.

(Habban counts rapidly, then rises, shaking his head.)

Habban—

Here scarce are fifteen talents, Holiness.

St. Peter—

'Tis a beginning, add thereto the stone
Here in my hand. Its value thou shouldst know.

Habban—

The Maharajah's diamond that I sold
Isaac the Jew !

Mary Magdalene—

He died that very night,
The night that Thomas sailed for India.
The diamond must have fallen from his hand
Into the street. A child discovered it;
His father, Carpus, brought it here to-day.

St. Peter—

What is it worth ?

Habban—

Alone it is enough
To pay King Gondophares all his due.

St. Peter—

Then bear it back with thee to Narankot.
And, if our brother Thomas be alive,
Present it for his ransom ; but if he
Be fallen asleep, to his destroyer say :
Here is the value of the gold thou gavest !
Take it, and forfeit thou for evermore
The palace that he built thee in the skies.

Habban—

With this in hand, I have no fear to face
My master, be his anger ne'er so fierce
Against his servant.

St. Peter—

Habban, fare thee well.
Yet, ere thou start, repair to Mary's house,
Mother of our beloved disciple, Mark ;
Where shall await thee ere the set of sun
Our letter to the Church at Narankot—
The assembly is dismissed. To all be peace !

St. Peter rises—Exeunt all, except Mary Magdalene, Salome, and Habban.)

Habban (delivering letter to Mary Magdalene)—

This for thee, lady.

Mary Magdalene—

Oh, my heart is torn !

And I must live in this uncertainty,

Now hoping, now despairing, never sure—

How long, I know not. Now within my soul

Shall hear a voice “ He died that very day ”

And in the solemn hush shed lonely tears,

And on the grandeur of his passing muse :

Now catch another whisper, “ Nay, he lives,

And thou hast him to live and wait for still.”

Then back again shall come that haunting fear

Even as a storm-cloud steals athwart the sun :

“ They slew him—thou shalt never see him more.”

O bad to know the truth, whate’er it be !

Yet nay, if in that dreaded voice it lay,

I would not know it, but would linger on

Hoping till on the horizon hope’s last gleam

Should fade, and with it die the light of life.

Salome—

O Mary, alas for those who still desire

Some lesser light than He who lights the world !

Mary Magdalene—

Hadst thou then no ambition for thy sons,

No grief when James was martyred ? O ! forgive me,

Salome, thou hast suffered—thou hast loved—

And love must always suffer on a cross

Yet were a loveless life an empty shard.

(She unrolls the parchment, and reads it.)

O Thomas, Thomas, couldst thou only see,

Thou needest not have doubted it is thine !

(Bursts into tears. Salome silently comforts her.)

Habban—

Is there no answer, lady, ere I go ?

Mary Magdalene—

Ay, I will write it now for thee to take.

*(She writes, during which a voice is heard singing
the following lyric.)*

The Secret.

When deserts stretch and ocean tides
Between us ebb and flow,
A secret in my heart abides
'Tis all the world to know.

When hours of waiting on us press
And time is footing slow,
That secret in our wilderness
Is all the world to know.

When sorrow clouds the lonely day,
And tears for absence flow,
The truth that turns to gold the grey
Is all the world to know.

It drives out gloom and lightens care,
It sets the heart aglow.
The secret, dearest, that we share
Is all the world to know.

Mary Magdalene (giving the letter to Habban)——

Now, Habban, hasten for the love of God

CURTAIN.

(To be continued.)

FRANCIS A. JUDD

RHYMING ÆSOP

(A Review of a Still-born Book)

There was a time when I taught English to classes of young Indians. I used once a week or so to read aloud a fable of Æsop. Then they wrote it in their own words. The brighter ones always finished long before the rest, and for their benefit I would read aloud another fable about the middle of the hour. The fable one day was, "The Bat, the Birds, and the Beasts." When the first to finish asked me to read another, I felt a sudden disinclination to do so, and put the young man off by asking him to repeat the fable he had already written, but this time in verse. He wrote a very little of it so, in an irregular unrhymed metre. When correcting his paper, I added rhyme, and a few lines to those he had written; and while bicycling about on my business the next day, I finished the version in my head. A few days later, having to wait for something, I thought I would turn another of the fables into rhyme, and happening to choose "The Town Mouse and the Country Mouse," and finding it fall into a number of charming literary "vignettes," I fell in love with versifying Æsop. One of the "vignettes" was the reply of the Town Mouse to the question whither he was going:—

" I visit my Country Cousin,
Who lives beneath the ricks.
Poor are the meals he nibbles
Among the straw and sticks !"

Just as, when one is eating cherries, one chooses always the most tempting one left on the plate as the next to eat, so I chose always, as the next fable to put into rhyme, that one of those left that appealed most to me for beauty, or pity,

or gentle truth. When I had done nearly all those that had that appeal for me, the desire to make a book that should be published began to stir in me. That meant rhyming all the rest—those whose appeal was not of beauty, nor of pity, nor of gentle truth, but of something very different. When the truth of the fable, to speak of truth rather than of beauty or of pity, was a gentle truth, and such is the truth of, say, "Belling the Cat," "The Hare and the Tortoise," and many another, I had tried to keep the whole tone of my version in keeping with gentleness, even at the risk of making it too pretty. What, however, was one to do, when, as in the fables of "The Wolf and the Crane," "The Fox and the Goat," "The Nurse and the Wolf," the truth was harsh or cynical? Just be harsh or cynical? One has so little wish to be. *It is* mere cynicism, when a wolf tells the crane that has pulled a bone out of his throat, that it is fee enough (a handsome fee was promised) not to have had her head bitten off. It is not mere cynicism, when a nurse speaks in a wolf's hearing of throwing a baby to it, if the baby cries, and then, when the baby has cried, sends angry dogs to kill the wolf, but it is not a gentle truth. It is a harsh truth that the terror of you may be turned to somebody's good, while you yourself remain vermin to the end.

What, further, was one to do, when the fable was dull; for dull some of them seemed to be, as the fable of the hart, whose death his antlers wrought that he so admired? It might be that what was dull was the moral appended to the fable. Dull, dull to stupidity, appears to me the moral "cunning often outwits itself," as applied to the fable wherein the fox tries to induce the cock, safely perched out of reach, to come down by telling it that the lion has decreed a truce till midnight. The fox, seeing the house-dog coming, slunk off, saying the dog was deaf, and might not, either, have understood. It was all a "try on," as we should say. It was one that did not come off, but all the same it was a "try on" and nothing more.

Dull, too, is the moral "You can't escape your fate," appended to the fable of the blind doe. She stood with her blind eye to the sea, but the hunter got a boat, and shot her thence. Or in my version : —

"There be

Boats, and that hunter he got one
For money paid unto the crew,
And shot the Doe, and it was done ;
And then the dying creature knew

"You can't escape your fate", and neither,
Had I the seeing to it, should
That wooden moral's author either,
Unless, indeed, 'twas something good !"

The Doe, in some Does' heaven, telling the story, and using (but she would'nt) such slang as ours, might say it was a "regular *do*." So it was. One is prompted to ask if Æsop had phrases equivalent to "try on" and "do." The Grecians among my friends tell me that he hadn't.

While I was cogitating the question what to do with the dull fables, or the dull morals, an imp awoke in me, saying: "Play with laughter round them: make a light mock of them." People are always the better for being laughed at occasionally. So, presumably, are fables. I took that imp's advice. Sometimes the mockery was only in some little "tail" that I added to the fable, and it might not be Æsop or the fable that I mocked, but something else. Thus, to quite a simple version of "the Hart" I added the "tail":

"The thing I'm proudest of may be
A disappointment, worse than any.
Who knows? This book of rhymes you see
May never bring me in a penny,

If all the world should like it not—
 But just as well the world may say :
 ‘ You thought them better, did you not,
 Your serious poems ? ’ ‘ Yes. ’ ‘ *Not they !* ’ ”

But oftener it was the fable itself. I tried to see that once in a way the tables were turned on the Fabulist—but in no seriousness, but all in play. So much was it pure play for me, that, when I had barbed a little dart against Æsop, as *rendered in the prose translation* (Jacob’s) *that lay before me*, I was not to be deterred from shooting it off by any thought that the original Greek might be different. Thus, when I read that a Crow found a *little* water at the *bottom* of a *pitcher*, which the fable says it brought to the top by dropping stones into the pitcher ; happening then, too, to think of the sound but tedious saws of nurses, etc., about the will and the way, and early rising, I could not resist the temptation to make my rhyme :

There was
 Some water at the bottom.

And now it is not there, but here ?
 Quite near the top ? ‘ The crow
 Might easily have chosen stones
 Exactly square ! ’ ‘ Just so.

‘ And square the pitcher. ’ Let who can
 Believe the tale. To me
 It is as dear and innocent
 As anything could be.

Little by little you may try
 The thing that can’t be done.
 You will not do it, though each day
 You get up with the sun,”

which is true speech too.

I was even reprobate enough, as some will consider it, as to write the "Milkmaid" (she was to sell the pail of milk on her head; buy hens; sell their eggs; make profits, and be wedded in silk, and in Church toss her head at some rival) in two parts, the first in close enough correspondence with the Greek, the second being :—

"O Patty! I will not be hard
 Upon you, Nay!
 Your dream, it was the only card
 You had to play.
 You played it, and enjoyed the playing,
 My sweetheart, that there's no gainsaying!"

That fable, as it happened, was the last I had had to do. After writing it I laid down my pen. In a little I took it up again, and having thought of the interest, the enjoyment, and the fun that I had got out of it all, I added this for a merry envoy :

"I've played this, and enjoyed the playing.
 O Æsop, that there's no gainsaying!"

That was to say grace, and, as it proved, to say it at the fittest moment, for no beautifully printed and illustrated book was to follow. An eminent publisher, to whom I showed the better half of the manuscript "feared it would not make a children's book, and could see no other possibility." Another eminent publisher wrote : "the manuscript of your Æsop's Fables has now returned from my reader. His opinion is that there is small chance of making a commercial success of any edition of Æsop at the present time. This author, unjustly, is accounted food for babes, and must have copious illustrations to succeed at all. Even La Fontaine's versions stick at the present time." So be it, I say. The honour shall be another's. Meanwhile (such has been my thought) there is something that my "study" of the fables may have qualified me to say about them.

There is, first of all, something to say to the question, whether even a much happier English rhyming of the fables than my own, would make a book in these days. It may be doubted: what is the interest of Æsop compared with that of Homer? Yet an Edmond de Goncourt could say: "*Le moindre roman psychologique me touche plus que tout votre Homère.*" It is not only with *romans psychologiques*, too, that the fables have to compete. Think, if the audience is of young people, of "Johnny Crow's Garden," of the Jungle Books, of the Alice Books, of the Brer Rabbit stories, "Jan of the Windmill," "A Flat Iron for a Farthing," "Treasure Island," "The Count of Monte Christo," and all the others. Think of those books, too (for they appreciate them more), when the audience is one of grown-ups, and add each man's favourite reading, apart from such books. What Æsop can compete with "Guy Mannering" or "The Egoist?"

Yet if the lapse of time, with its great harvest of maturer books, has deducted from the interest of Æsop, time has also added to it. It has associations for its readers to-day that it had not at the beginning. That raises the question, whether in rhyming it one ought to give as literal a translation of the text as possible, or whether one might make one's venture for such a free rendering as Edward Fitzgerald might have given us. I am all for a rendering in the Fitzgeraldian tradition myself; such a one as the following:

THE WOODMAN AND THE TREES.

"We have so many branches,"
The Trees said. "Give him one,
The man with that bright thing in's hand—
An axe!" And that was done.

Now when all once was silent,
I listen for the stroke.
They fall down fast, the ancient Trees,
The Ash, the Elm, the Oak.

"Satan, you need not trouble,
Nor make so much ado.
The thing you want my hands to make,
My own heart prompteth to."

Very little of that is in Æsop, of course.

"The Belly and the Members" is the richer in association for us for having been told by Menenius Agrippa in "Coriolanus," and "Belling the Cat" recalls an episode of Scottish history. Similarly the "Wolf and the Crane," with its moral—greed and ingratitude are always found together—brings back Louis XIV and the "un ingrat et dix mecontents" that he said he made every time he conferred an appointment. That is so by whomsoever the fables are read, or rhymed, and however literal the version be. To any particular rhymers they may recall more, and, should he feel under no obligation to be too strictly literal, he may communicate the fuller association in his version. Sometimes what may put him upon that fuller association may be something as trivial as the modern habit of rhyming. There is the fable, "The Four Oxen and the Lion." The oxen were safe until they quarrelled. Then they went separate roads, and one by one fell a victim to the lion, until four heaps of bones remained to whiten in the sun. The versifier, let us say, wants a rhyme to "bones." That suggests "stones," which recall the Duke's "sermons in stones" in "As You Like It," which again recalls Carlyle's saying of Ruskin's "Stones of Venice," that it had been well called "Sermons in Stones." Each heap of bones was a sermon. There, then, you have the rhymers furnished with the almost ready-made verse :

There are four heaps of bones
That whiten in the sun.
Sermons there are in stones,
And there you've four times one.

Louis XIV, the versifier might think, with his "un ingrat," and that not only when the preferred one was greedy, but

always, know one thing better than Æsop. That was my thought, and my next was of the story of when it rains in Skye. Always, the native replied to the tourist, when the wind is in the south or west, and usually when it is in the north. "Then," said the tourist, "you get your fine weather, when the wind's in the east." "Well," said the native, with a hesitating drawl, "may be." And then brightening: "But I have known it rain with the wind in the east!" So my wish was, until a friendly critic pressed me to renounce it, to have my version end with

You tell me that ingratitude
And greed are found together.
Only with greed? In Skye, God's rood!
It is always rainy weather!

To the Æsopian "Words may be Deeds," the moral of "The Trumpeter," one can hear Carlyle's responsive shout of "Aye! aye! A Luther's any day!" He would go to Wittenberg, Luther said, if it *rained devils*, Carlyle would quote to any doubter.

The subject of Indian politics will jump to the mind of anyone familiar with it, when the fable of "The Sun and the Wind" is read, with its moral—kindness affects more than severity—and, to mention a very different association, the Town Mouse's enumeration of the things they would have to eat recalls (to me it does, at least) Tennyson's "Across the walnuts and the wine."

If only a man here and there would know that Louis XIV knew one thing better than Æsop, everybody would know better than say, "Better no rule than cruel rule"—the moral of "The Frogs Desire a King." What anyone would say would be likelier to be:

"Better no rule than cruel rule"—
And yet I do not know.
It may be in the case of frogs.
With *men* it is not so.

So, too, if you had told the author of the "Clothes Philosophy" that "fine feathers make not fine birds," it would only have provoked him to say :

"Fine feathers make not—as I live,
That's just exactly what they do!"

Only a very critical spirit would quarrel with the moral of "The Dog in the Manger," but if one is a very critical spirit? The dog is sleeping comfortably among the straw in the manger, and will not give it up, when the ox comes to feed. So in the text the ox is made to go away hungry, saying that people grudge others things that they do not themselves enjoy. That may be true enough in general, the critic would object, but as to *that* dog and *that* straw, cannot you see, dear Ox, that enjoy it is just precisely what he did. Only the same too-critical fellow would ask—no, *he* wouldn't, but *I* will—if a dog were to snup at the reflection of a piece of meat in a stream, and were to drop the piece in his mouth, would it not lie clearly visible at the bottom for any intelligent dog to jump in after? Or are muddy streams, which do hide the things that fall into them, the only ones that reflect objects? A question allowable enough, when questions are being asked.

The chief interest of any rhyming must lie, however, in those charming literary "vignettes" with which it would abound: for the Greek does so abound in them:—each rolled over and over in the mind, like a pebble on the beach, until it had gained the last smoothness and polish. I gave one—capable, no doubt, of still further polish—at the beginning. Others (they will be seen, too, to be wonderfully varied) are :

He sitteth by the stream,
And playeth on his pipe
An old Arabian dream
Of men and maidens ripe.

" I know that men think pearls adorn.
For me, I'd give a ton
Of biggest pearls for barley-corn,
A peck or two, my son ! "

There was a time when Satyrs wandered free
In every wood—goat-footed, hairy men,
With little horns upon their heads—and then
Fairies were seen beneath each haunted tree.

The House-dog said : " You must have starved,
O Cousin wolf, to be so lean !
Where soup is served and meat is carved,
There daily / am seen ! "

" What wouldst thou, Mortal ? Didst thou call ? "
Death asked the Old Man. " Here I stand."
" Oh, thank you kindly—just a hand
To help me with these sticks. That's all."

The wolf is on the lone hillside :
He lappeth at the stream ;
And near him is a little Lamb,
Come softly as a dream.

I am afraid I shall be accused of having quoted too freely in my review of my little book. It had come to wreckage ; what I here offer to the public are spars and other flotsam gathered on the beach. If I have picked up too much (I admit I have), is it such a very great sin ?

J. A. CHAPMAN

TULSIDAS

Dark and swiftly flowed the river, black Kalindi¹ broad
and deep,
For the rain was falling heavy; and against her banks so
steep

Raged the torrent. There he stood and called out loudly for a
boat,
Called out louder, but in vain, for here no fragile bark may
float.

Anxiously he looked across at yonder casement high above
The flood, where shone the golden beam,—the message of his
only love.

“Let the river rush and tumble, let the night be dark and
drear

“I must cross this foaming torrent, I have read her message
clear.”

And he seized a floating log, got astride that parlous bark,
Safely reached he—Love his pilot—yonder bank so steep and
dark.

There he saw a mighty serpent hanging downward like a rope,
Clambered up its writhing body to his sweetheart full of hope.

¹ The Jamna.

But she looked at him disdainful, and she said, "what use this
love,

"Thus bestowed upon me, worthless, instead on great Rāma
above?"

At her words his eyes were opened; and he stopped to hear no
more,

Plunged he headlong in the torrent, came out on the other
shore.

Soon he left the banks of Jamna, unto Ganga turned his feet,
And in holy city Kashi, founded he his holy seat.¹

For he was that great devotee, greatest Aryavarta knew
Tulsi—gentlest, noblest *bhakta*, unto Rama's Servant² true.

All through length and breadth of India, men and women, who
can read

His sweet-sounding Hindi measures, draw in times of greatest
need

Comfort from his noble tale of Rama, perfect Man and King:
Tulsi touched the heart of India, Hanuman taught him to sing.

Tulsi's house and shrine in Kashi still possess a power rare,
None but those who love not self can with safety worship
there.

POST-GRADUATE

LULARAK

[There is a beautiful well in Kashi called *Lulārak-kunḡ*, about which the following legend is told.]

The well of Aditya¹ beloved
Was famed throughout the land,
Its waters could the leper cure,
And make his limbs quite whole and pure,
Whether the foot or hand.

The young King's body was quite full
Of this most foul disease :
He came unto this holy well,
But never once did he believe
That simple water could relieve
His pain and bid it cease.

Yet still he came, and as a test
He dipped one finger in.
Lo, it was whole !—But no relief
To other limbs the waters gave,—
Because his fault was very grave.—
His unbelieving sin.

¹ The Sun.

He sued for pardon from the god
For doubting thus the cure
These waters else had surely giv'n :
For scores of years with humbled head,
Unto Aditya pray'r he made,
Until he washed him pure.

The monarch with a grateful heart
Built up the well secure,
Nor entrance gave to unbelief ;
Such in the well found no relief,
Nor those with thoughts impure.

POST-GRADUATE

III. SOME CHARGES AGAINST THE CALCUTTA UNIVERSITY AND ITS PERSONNEL—*contd.*

To tell the truth, no Indian University has as yet specialised in any branch of study and research for want of adequate provisions. First let us have specialism in India and then think of reducing some "branches and subdivisions" of the Calcutta University on the ground of specialisation.

Professor Sarkar states that "the method of the Calcutta University, is, therefore, diametrically opposed to the principles laid down by Sir Michael Sadler, who says, "The chief problems of Universities to-day are *how to lessen the prevalence of lectures and to substitute courses of guided self-training in library and laboratory, without leaving the idle without discipline and the inert without stimulus.*"

Sir Michael Sadler in an address to the members of the Leeds Theosophical Society made the above observations. No one denies that in an ideal university the prevalence of lectures must be lessened and courses of guided self-training in library and laboratory increased. But has Professor Sarkar taken care to realise the full significance of the above utterance? In the same address Sir Michael Sadler himself says: "*All these new developments involved heavy expenditure on personnel (the economic position of which was still in most cases far from satisfactory in all countries) and on buildings, libraries, and scientific equipment.*"

For the carrying out of research-work in different subjects, suitable places must be provided where students can work and teachers can conduct their classes or seminars. The Calcutta University Commission is of opinion that the Darbhanga Building has hardly room for the post-graduate classes and for the law classes, besides accommodating the Library of the Post-graduate Department, the Law College Library and the various

offices. The fish-market was purchased to meet the demands for additional accommodation. In view of the increased cost of building, the Commission thinks that "*13 or 14 lakhs ought now to be allowed for the purpose ; and the furnishing of the building would probably cost a lakh more. The accommodation in the Science College is too small. Therefore a neighbouring site should be acquired for about 4 lakhs and a sum of 6 lakhs should be provided for the building.*"

The Library is the centre of all research work. Scientific research requires a library as well as a laboratory but for humanistic research, the library serves the purpose of both library and laboratory. Training in research is mainly a question of learning to use the tools and if the tools are not there, the student cannot possibly learn their use. Further, for the efficiency of the library, the library staff must be efficient. Hence the Calcutta University Commission recommends that in order to make the library a first-rate library a sum of 2 lakhs should be provided for initial expenditure on books and an annual library grant of Rs. 50,000 should be made for the further purchase of books and periodicals. It recommends that a man of professorial standing on a salary of Rs. 600-800 per mensem should be employed as librarian. The Commission also recommends that the laboratories of the Science College in physics and chemistry are as yet only half-equipped and they will require about a lakh for their adequate equipment. The botany and zoology laboratories also need equipment and this equipment will require about Rs. 50,000.¹ *The Calcutta University Commission further recommends that the sum of 1½ lakhs should be provided for the strengthening of the existing post-graduate staff.*²

Thus we see what development of courses of guided self-training in library and laboratory involves. It requires a large expenditure on *personnel*, on buildings, libraries, and scientific equipment. Most of the universities of the world

¹ Report, Volume V, pp. 287-88.

² Report, Volume V, p. 283.

have not been able to properly develop courses of guided self-training in library and laboratory for want of necessary funds, and the University of Calcutta may not form an exception. It is a pity that Professor Sarkar does not realise it.

Professor Sarkar urges that "the (University) staff should be made to give good value for the money spent on them." Our learned friend states that some University teachers get Rs. 200 to 400 for six to eight lectures a week. He takes Rs. 300 as the mean pay of the University lecturers. He further contends that a first class M. A. serving in a College gets much less than the University lecturer serving on Rs. 300 (the mean) though the former has at least fifteen hours' work a week. In the first place, it may be pointed out that Rs. 300 is not the average salary of a University lecturer as Professor Sarkar wrongly contends. According to the Calcutta University Commission (1917-19) Rs. 225 per mensem is the average pay of the University lecturers. Professor Sarkar holds that a University teacher gets more pay for less work as compared with a college teacher. This statement is not wholly correct either. It has been conclusively proved that a first class M. A. serving in a Government College gets more pay and has much better prospects than a University teacher. Even the average pay of a first class M. A. serving in a "privately-managed" college is not, generally speaking, less than the average pay of a University teacher. But the teachers of the privately-managed colleges have to work more, for their proprietors are unable to retain a sufficient number of teachers for want of necessary funds. These teachers, too, very often complain of their hard lot and leave their services for better ones whenever opportunities arise. When the members of the Calcutta University Commission went to inspect the working of the Ripon College, Professor Ramsay Muir of the Manchester University—a member of the Commission—on learning all about the working hours of the lecturers of privately-managed colleges, pointed out that the arrangements were very unjust and that the

Professor in his own University gave only one or two lectures every week. But Professor Sarkar avers that they should be made to give good value for their pay and he is a great man! In our college days in the nineties of the last century, lecturers in Government Colleges had generally to work about nineteen or twenty hours per week for a small salary. They had hardly any leisure either to think or to do any useful work. This bad system has, however, been changed. And no one grudges such professors better pay for less work.

The Calcutta University Commission which critically examined the working of the University nowhere observed that the University teachers were getting more pay for less work. On the contrary, it recommends that the average pay of the University teachers should be raised to Rs. 300 to make the service more attractive.

"The 138 full-time University lecturers which provide the bulk of the instruction are paid salaries, varying in amount, which average Rs. 225 per mensem or £180 per annum. The funds do not permit these salaries to be increased, nor is any superannuation scheme provided; it is consequently difficult to retain the service of some of the abler teachers. It would demand an additional expenditure of almost 1½ lakhs to increase the average salary to Rs. 300; which is not excessive for this grade of work, seeing that we have suggested Rs. 200 as the average of those of the college teachers who are not heads of departments."

Eminent educationists are of opinion that "if a man is to make additions to his stock of knowledge, he must have time to search, and he must have time to think."² We learn from a high authority that in France "on the average University professors and lecturers only give three hours'

¹ Volume V, pp. 282-83.

² Report of the Second Congress of the Universities of the Empire (1921), p. 347.

teaching a week."¹ University teachers of other progressive countries, have not, generally speaking, got more than three or four hours' work per week. But Professor Sarkar contends that Calcutta University teachers who, according to his own admission, have eight hours' work per week "should be made to give good value for the money spent on them," *i. e.*, they should work at least fifteen hours a week. May we ask one question in all humility? What will our learned friend think of a man who suggests that Professor Sarkar should work thirty hours per week on the ground that he should be made to give good value for the salary of Rs. 800 or Rs. 900 that he draws? We now very well understand why most of the valuable proposals of the learned Professor were thrown out by the majority at the Patna Senate.

The learned Professor makes another valuable suggestion. To quote his own words, "The first item of reform is to enforce a commonsense financial system on the megalomaniacs of the Calcutta University, and to insist on a strict public audit and publication of the details of its income and expenditure." In this connexion it may be pointed out to the learned Professor that all the details of income and expenditure of the Calcutta University are audited every year by Government auditors under the direction of the Accountant-General of Bengal and they spend about eight months a year for this work. As to the demand for the publication of the details of its income and expenditure we take serious exception on principle. The details of income and expenditure of different departments of government are never published. Even the Municipalities and District Boards never think of doing so. Why should the University of Calcutta alone be asked to publish the details? Professor Sarkar tells us that this is a statutory obligation with the newer Universities of Benares, Lucknow, Dacca, etc. We do not know much about the University of

¹ Sandiford, *Comparative Education*, p. 309.

Benares. But to our knowledge the details of income and expenditure of the Hindu University have never been published in any gazette or newspaper. In the Allahabad University Act (1921) we find no provision for the publication of the details of income and expenditure. Section 37(2) of the Dacca University Act provides that "*the accounts when audited shall be published by the Executive Council in the Calcutta Gazette.*" But where is the provision for the publication of the *details* of income and expenditure? We ask our learned friend to show that the details of income and expenditure of any Indian University have ever been published in any gazette or newspaper. What about his own University of Patna? Had Professor Sarkar the courage to demand, as a member of the Senate and Syndicate, such details of income and expenditure from the affiliated colleges of his own University? We learn from a friend of ours at the Patna University that at the time of the Budget Debate in November last, when a motion was made for such details of income and expenditure, Principal D. N. Sen strongly protested and the proposal fell through.

The Universities of the United Kingdom, strictly speaking, are accountable to none except to their own Courts or Bodies Corporate for the money spent by them. The University Grants Committee leaves to the Universities the full decision as to how the annual grants are to be spent, and surveys carefully from outside the developments occurring in each of the Universities and suggests in its annual reports *how the defects are to be remedied*. The Chancellor of the Exchequer always recognizes the claims which the Universities have upon the State. Though the grants to the Universities come direct from the Exchequer, the officials of the Exchequer avoid anything like rigid control and they are content with a loose coupling between themselves and the Universities. Sir J. A. Ewing, Vice-Chancellor and Principal

of the University of Edinburgh, gives us an account of a conference between Sir William McCormick and his University Grants Committee and the Vice-Chancellors headed by Sir Alfred Hopkinson. *The situation presented many possibilities of suspicion and doubt and the Vice-Chancellors were naturally afraid of the bearers of gifts. They feared lest the grants should carry unacceptable terms and lest the autonomy, which they valued so much, should be curtailed. But on exchange of views the thick atmosphere of doubt was dispelled and they found that "the grants were allocated en bloc and practically without conditions."*¹

In the United Kingdom the educational authorities have done nothing to interfere with the academic freedom of the bodies who receive their official grant, but in Bengal we hear that "financial matters are matters which are specially in charge of the House, and therefore there must not be any irritation shown by the Calcutta University when this House desires to inquire into them."

Our noble councillors aspire to self-government on the lines of the Dominions. So it is essential on their part to know how the Universities in the Dominions are being managed. We learn from Sir Robert Falconer, President of the University of Toronto, that they enjoy perfect autonomy in connexion with the administration of their Universities. He says :

*"The Board of Governors is independent ; it presents its budget to the Government every year, and where a deficit has to be met, it is met by the Government on matters of policy and expenditure, not on detail ; and we have perfect freedom in the appointment of our staff and in the distribution of our funds."*²

The Universities of Australia and New Zealand are also governed on the same principles.

¹ Report of the Second Congress of the Universities of the Empire, pp. 296-97.

² Vide the Report of the Second Congress of the Universities of the Empire, p. 327.

The Universities of the United Kingdom and the Dominions are proud of their autonomy and they are bitterly opposed to any insidious proposal to hand over to officials their freedom, however wise they may be, but Professor Sarkar of the Indian Educational Service seems to be proud of the absence of autonomy in the Indian Universities and is for placing them under perfect Government control! He attacks some teachers of the Calcutta University for teaching heresies which have long been exploded in Europe but he himself is not ashamed of advocating ideas and principles on education which have long been exploded in Europe!

The Calcutta University Commission which carefully examined the relations between the Government and the Calcutta University makes the following proposal regarding the financial management of the University :

*"It is in the sphere of finance that the relations between Government and the University must necessarily be most intimate. We propose that Government should make a fixed annual allotment to both Universities, and to the various colleges included in the University of Calcutta, attaching such conditions as it may think fit to any part of such grants; and that it should then leave to the authorities concerned the responsibility for making the best use of these funds, requiring only a full annual statement of accounts, audited by the appropriate Government department, which should cover the whole income and expenditure of the University, and show clearly what use has been made of the Government grants."*¹

In order to safeguard the position of "the bearers of gift" the Calcutta University Commission proposes that "of the seventeen members of the Executive Council of Calcutta University two will be directly nominated by the Government of Bengal, in order to ensure that the chief administrative organ of the University does not get out of touch with the general educational policy of Government."

¹ Report, Volume V, pp. 222-23.

Having regard to the present stage of development of Indian Universities, the Government cannot reasonably demand more rigid control. Too much detailed Government intervention undermines the sense of responsibility of the University authorities and brings about an element of confusion and complexity prejudicial to the growth and development of Universities. Financial management of all the Indian Universities is run almost on the same lines as those of the University of Calcutta. If so, why this talk of appointing a Committee to enquire into the financial management of the Calcutta University alone? It is highly surprising that men who aspire to self-government on the lines of the Dominions cherish thoughts and ideals on education which are in direct opposition to the progressive thoughts and ideals of the Dominions. The Bengal Council will do well to follow in the footsteps of the U. P. Council in this matter. We hope and trust that better sense will prevail among the representatives of our people.

In conclusion Prof. Sarkar observes that "after this, need one wonder why a scholar and educationist like the late Captain Charles Russell called the Calcutta University 'the mother of sham,' and a still greater authority, Sir Michael Sadler, wrote of an exposure of its methods as 'a piece of unforgettable laughter like the tale of *The Invisible Clothes*?'"

We are sorry to note that our learned friend always confuses issues. Throughout his articles he has all along condemned the present post-graduate department of the Calcutta University and has said nothing against the examining University of Calcutta prior to the passing of the *Indian Universities Act* of 1904. So as a consistent critic he should have cited an authority which has condemned the present post-graduate system. But the remark of the late Captain Charles Russell, we are afraid, relates to the period of the Calcutta University when it used to manufacture 'genuine articles' like Prof. Sarkar and others. The late Captain was never a great

educationist and his observations may very well be left to take care of themselves !

Professor Sarkar calls to his aid the high authority of Sir Michael Sadler for condemning the present post-graduate system. We have not been able to trace the words that have been put in the mouth of Sir Michael Sadler. Professor Sarkar will probably enlighten us on the point. Sir Michael Sadler was President of the Calcutta University Commission (1917-1919). In the Report of the Commission we meet with the following observation regarding the post-graduate scheme :

*" We have said enough to indicate that the post-graduate scheme, though possessing many admirable features and furnishing a satisfactory solution of many difficulties, does not debar an extensive survey of the entire solution and the evolution of a comprehensive scheme of University development and reconstruction such as will be outlined in later chapters of this report."*¹

In face of such written testimony, we are unable to believe that he has made such an unmerited observation against the post-graduate scheme of the Calcutta University. Sir Michael Sadler will really be sorry when he learns that such a remark has been attributed to him by a member of the Indian Educational Service.²

In circumstances of great difficulty, the building-up of the teaching University of Calcutta has been a very arduous task—a task demanding great labour and devotion. Even an ungenerous critic like Professor Sarkar has been forced to admit that *" of all the Universities of India, that of Calcutta possesses the most promising material and ready appliances and manpower for higher work ; while it would take years for the other universities to build these up."* Sir D. E. Wacha—no mean authority—in a letter to the present Vice-Chancellor

¹ Volume II, p. 70.

² There is a persistent rumour that Sir Michael Sadler himself in a letter to the Editor of the *Modern Review* has contradicted the statement attributed to him by Prof. Sarkar but the present and independent Editor of the *Leading Monthly of India* has not considered it expedient to publish it. We ask for a contradiction from the Editor.

of the Calcutta University observes that "*by dint of perseverance and patience, combined with your broad-mindedness and wonderful liberality of thought and imagination, you have raised the Calcutta University to a high pedestal indeed—a model for all other presidential Universities to follow.*"

It has been noted above that with all their care for economy almost all the universities of the world are in debts. The time-honoured Universities of Cambridge and Oxford are confronted with huge deficits. The Universities of Canada and New Zealand are similarly situated. Harvard and Yale, whose resources are ample, are in no better condition. The Universities of Benares and Patna also show deficit. Even the University of Dacca which has been getting nine lakhs, wants more for adequate equipment. Deficiency in revenue is the order of the day.

The teaching University of Calcutta is a great achievement. It has done invaluable services to Bengal in the course of its short existence. In the words of the Sadler Commission, "in circumstances of extraordinary difficulty, it has done a great work." To quote the words of Lord Ronaldshay: "the greatest landmark in the history of the University in recent years is undoubtedly the creation of Post-graduate studies." Any one having the good of his country uppermost in his mind must see to its well-being, must provide for its adequate maintenance. But there are men who are trying to ruin it or are trying to stop its further development on the plea of 'reform.' There are men who are fiddling when their *Alma Mater* is burning. They are not realising the full significance of their folly. They will realise it when it is too late. Such is the fate of this unhappy land! O tempora! O mores!

ITINERARY OF OU-K'ONG (751-790).

(By Dr. Syltain Léri and E. Charannes : a translation.)

II

The King lived in winter at that place ; in summer he resided at *Ki-pin*. So he was enquiring after the heat or coolness of the localities, and was following that which was advantageous to his health. At that time the King welcomed the Chinese envoys with great politeness. The King received the imperial favour with respect. The Chinese ambassador returned taking his verbal permission, and receiving all objects which were accredited to him. His mission was fulfilled ; he returned to China. But *Fong-Tch'ao* (our monk) at that time became seriously ill. For many days he could not recover. So he was obliged to remain in the kingdom of *K'ien-t'o-lo* (Gandhāra).

Our Monk's Travels in Northern India :

After the return of the ambassador to the Court of China, our monk gradually recovered. He made a vow of devoting his life in the service of Buddha. He gave himself up to the *superieur* *Che-li-yue-mo*. He cut his hair and put on black robe. He had the intention of returning promptly to his mother-country, to see there his famous sovereign, to serve his parents with care, and to acquit himself wholly of the two duties of fidelity (to the sovereign) and of filial piety. He was, however, very glad that the *superieur* conferred on him a religious name in Sanscrit. That name was *Ta-Mo-T'o-Tou* (Dharma Dhātu), which in Chinese translation signifies *Fu-Kie*. Thus when he renounced the world, he was twenty-seven years old ;—it was then the second *Tche-Te* year (757 A.D.) marked with *Ting-yeou* signs, of the reign of

Sou-Tsong, the pious Emperor with bright intelligence, with war-like virtues, great sanctity, and penetration. When he became twenty-nine years old, in the kingdom of *Kia-che-mi-lo*¹ (Cachemire) he entered the altar to receive there all the injunctions.

He asked *Wen-Tchou-che-nie-Ti* (translated into Chinese, it means—to know correctly) to be his *Ou-po-lie-ye* (Upādhyāya),² also asked *Ou-Pou-Tchan-Ti* to be his *Kie-mo-Ngo-Tche-li-ye* (Karmācārya; in Chinese the word signifies 'the master of morals'), and finally requested *T'o-Ii-wei-Ti* to be his *Ngo-Tche-Li-ye* (ācārya) to impart to him the holy doctrines.

¹ Kashmir was, precisely at that time, in friendly relation with China.

The first ambassador from Kashmir (History of *Tang*, notice about Kashmir, Ch. cxxi, II part, p. 9) came to China in the beginning of *K'ai-yuen* period (713-742 A.D.). In the year 720, the King *Tchen-t'o-lo-pi-li* (Candrāpīḍa) had his name inscribed in the imperial register with the title of King. The virtuous Candrāpīḍa died, assassinated perhaps by his brother Tārāpīḍa, after a reign of eight years and eight months (*Rāja-taraṅgiṇī* IV, 118). The murderer seized the throne, which he occupied for four years. He was afterwards replaced by his younger brother Muktāpīḍa, whose glorious reign lasted for about thirty-seven years (*Rāja-taraṅgiṇī*, IV, 366). Muktāpīḍa, better known in Indian history under the title of Lalitāditya, tried to secure the support of China for widening the circle, already so vast from his conquests. General Cunningham is wrong in supposing that the fear of the Arabs had driven him to take that step. *Rāja-taraṅgiṇī* (Ed. Stein, IV, 167) seems to make allusion to a triple victory over the Arabs:

"Trin vārān samare jivā jitaṃ mone sa mumunim
Sakrjjayam arer virā manyante hi ghuṇākṣaram."

"When he had defeated *Mumuni* three times, he considered him vanquished, the true heroes take a single victory only as a stroke of chance." The gloss explains *Mumuni* by *Mumen Khān*; the Sanskrit name would be a partial adoption of the title of *Emir al Mumenim*, borne by the Khalifs and which agrees with the other part under the equally incomplete form of *Humtrū*. Troyer, in his edition and his translation, substitutes the word *dassanīm* in the place of *Mumunim*. The History of *Tang* shows that the proposed alliance had less for its object the defensive than the offensive. After the first Chinese expedition in the country of *Po-lin*, in the neighbourhood of Kashmir (between 736 and 747), the King *Mou-to-pi* (Muktāpīḍa) sent the ambassador *Ou-li-lo*, carrying a *missive* to the court of China for soliciting the establishment of a Chinese camp near the lake *Mo-ho-po-to-mo-loung* (Mahāpadma Nāga). He flattered himself that he could make provision for an auxiliary army of 200,000 men, and he reminded that, in concert with the King of Central India, he had blocked the five routes of Tibet, and obtained many victories over the Tibetans, then the dreaded enemies of China. Cf. *Raj-tar.*: IV, 168:

"Cintā na dīṣṭa bhaṇṭānām vaktre prakṛitipāpūre
Vanaukasām iva krodhaḥ Svabhāvakapile mukhe." * *

* See, Les Religieux éminents, etc., p. 140, note.

These three masters gave to him the sense of Vinaya in seven collections.¹ In the convent of *Moung-Ti* he heard the gilas read. When that reading was over, he heard and practised the sense of Vinaya of Mūlasarvāstivādins. In fact, in Northern India, all belonged to the school of Sarvāstivādins (the word signifies in Chinese "to believe that all have an original root"). It is the king of Northern India, who built the monastery of *Moung-Ti*, after he had received the royal dignity. In Sanscrit, it is called *Moung-Ti-wei-houo-lo* (Mundi Vihāra). The word *wei-houo-lo* (Vihāra) in Chinese means "the place of residence." A place of residence is a monastery. There are also the monastery of *Ngo-mi-T'o-P'o-uan* (Amitābhavana?), the monastery of *Ngo-nan-i* (Ananda?), the monastery of the mountain *Ki-Tchè*, the monastery of *Nao-ye-lo*, the monastery of *Je-Je*, the monastery of the general (*Tsiang-Kinn*=Senāpati), and the monastery of *Ye-Li-T'e-Le*: it is the son of the king of *Tou-Kioue*,² who has founded it. There is

¹ The "seven opinions" indicated by the text are probably identical with the "seven collections" of the Vinaya mentioned under different names by *I-tsing*, *Op. land*, p. 108, note, and p. 173, note.

² The power of *Tou-Kioue*, after having disturbed China, became low in the time *Ou-K'ong*. After the reign of *Me-ki-lien* Khan (716-732) the intestine war had weakened the hordes. They fell soon after under the domination of *Hou-he* (Ongours). The centre of their power was in the N. E. of Kao-tch'ang (Kara Khodjo, near Turfan). Their territory extended in the east up to bank of the henceforth celebrated Orkhon and about the lake Baikal; while one of their tribes reigned in the confines of India and Afghanistan. The religious endowments of *Tou-Kioue* in Gandhāra and in Kashmir attest to the strange sagacity of the races in Central Asia in the time of *T'ang* dynasty. The conversion of *Tou-Kioue* to Buddhism, according to the Chinese historians, dates approximately from 550 A. D. "there was a Buddhist monk in the Kingdom of Ts'i named *Hou-liu*, who had been taken by force and found himself among the *Tou-Kioue*. He spoke to *T'o-po-K'ou* and told him:

"If the kingdom of Ts'i is powerful and rich, it is only because the law of Buddha is observed there." He then talked about the causes and the effects, the works and their retribution. *To-po*, having heard this, believed those sayings and constructed a *Ku-lin* (Sanghārāma). He sent an ambassador to the Emperor of Ts'i for asking from him the religious books called *Tsing-ming-king* (Vimalakīrti-sūtra), *Nie-pun-king* (Nirvāṇa-sūtra), *Hou-pan-king* (Buddhāvatamsaka-sūtra) as well as *che-song-liu* (Sarvāstivāda-vinaya). *T'o-po-K'ou* himself observed the Fast, made the tour to temples and also *pāradakṣina* round the statue of Buddha." [Stan. Julien, Documents sur les Tou-Kious Journ. Asiat. 1864, 1, 355-354.] But the Buddhist charity conciliated badly with the military wild instincts

the monastery of *K'o-Toen* (Katoun).¹ It is the King of Tou-kiue, who established it. There are more than 300 monasteries in that kingdom; the number of *stupas* and of images is considerable. It is established by the king *Ngo-yu* (Agoka) and 500 Arhats.

Thus, in making the pilgrimage of adorations and in learning the Sanscrit language, he passed four years in his travels. From morning till night he was diligent; he never chanced to be slack for a moment. The Kingdom (of Cachemire) is surrounded on four sides by mountains, which make it an exterior rampart; there it opens in all the three roads, on which have been established the closings. On the east, a road joins *T'ou-fan* (Tibet).

On the north, a road penetrates into the kingdom of *Po-liu*; ² the road which starts from the gate of the west goes to *K'ien-lo-lo* (Gandhāra). There is still another road; but it is always closed, except when the imperial army has the honour to go through it. *Fu-kie* (Dharmadhātu) lived there till the fourth year. Then he started out of *K'ia-che-mi-lo* (Cachemire) and entered the city of *Kien-to-lo* (Gandhāra). There he resided in the monastery of the king *Jou-lo-li*; it bore the name of the king who founded it. The king came from the family of the ancient king *Ki-ni-tch'a* (Kanishka). There is also the monastery of *Ko-hou-li*, which bore the name of the son of the king; the monastery of *Pin-tche*, which bore the name of the younger brother of the king. Each of these monasteries has received the name of its founder. Then there are the monastery of *T'c-k'in-li*, founded by the son of

of these people. When *Me-ki-lien* wished in about 720, to erect in his residence some temples consecrated to Buddha and Lao-tseu, his minister *Tun-yo Kon* dissuaded him:—"Buddha and Lao-Tseu," said he, "teach kindness and humility to men. It is not the science of warriors." (*Id*, II, p. 481).

¹ *Katoun* is a well-known Turkish title given to the wife of Khan. See *Terrien de Lacouperie, Khan, Khakan and Other Tartar Titles*, in the *Babylonian and Oriental Record*, II, 277, and III, 19.

² About *Po-liu*, see the notice of *Mu-touan-lin* translated by Rémusat, *Nouveaux mélanges Asiatiques*, I, 194.

the king of *Tou-kiue*, the monastery of *K'otun* (Katoun) established by the queen of *Tou-kiue*, the monastery of *Ngo-che-tch'a* (Aṣṭa), the monastery of *Sa-kin-hou-li*, the monastery of sacred *stupa* of the king *Ki-ni-tch'a* (Kaniṣka), the monastery of *Yen-t'i-cha* of the king *Li-ni-tch'a* (Kaniṣka). That monastery has many relics like the bone of the skull of Çakya, the Tathāgata. There is the convent "of *cha-mi* (Çramanera) who invaded the palace of Nāga," of the king *Ki-ni-tch'a* (Kaniṣka).¹ Thus travelling and worshipping he passed two years more.

It was then in the second *koong-te* year, marked with *kia-chen* signs of T'ai-Tsong, that he went in southerly direction towards Central India. There he saw and adored eight *stupas*. He was at *Kia-pi-lo-fa-sou-lou* (Kapilavastu) consecrated by the birth of Buddha, who descended from the heaven. Then he was in the kingdom of *Mo-kie-ti* (Magadha) where the dignity of Buddha attained the stage of Bodhi (bodhimanda). In the monastery of Bodhi (Mahābodhi-Vihāra), he passed the summer peacefully. He went to the city of *Po-lo-ni-sen* (Vārāṇasī), to Rṣipattana, to Magadha, where Buddha turned the wheel of law, then to the mountain Gṛdhrakūṭa, the scene of the preaching of (Sad) Dharma-Puṇḍarīka Sūtra; then to the city of *Vaiçālī*, where Buddha announced his inconceivable decision; then to the city of *Ni-Fouo-ta-to* (Devāvatāra), where the ladder of gems in three ways touched the earth in descending from heaven;¹ then to the city of *Che-lo-fu* (Çrāvastī), to the garden of Jetavana given by Anāthapiṇḍada, where Buddha preached *Mo-ho-pan-jo-po-lo-mi-to* (Mahāprajñāpāramitā) for saving those

¹ *Hsuen-Tsang* recounts in detail the history of the Çramanera, contemporary of the King Kaniṣka (II, 47-53). He mentions equally "the convent of the ancient king" where is seen "the fragment of the top of the head of Tathāgata," and "the convent of the wife of the ancient king." *Hsuen-Tsang* placed, it is true, those monasteries in the kingdom of Kapaśa, but the legend which he related about the convent of the Çramanera placed the scene of action and the site of the convent in Gandhāra, as does our text.

who are outside the path; then to the city of *Kiu-he-na* (Kuginagara), and to the woods of two Çālas, where Buddha entered Nirvāṇa. Thus he made the *pradaksina* of eight *stāpas*; there he offered food and rendered homage to them. He visited all the surrounding places. Afterwards he resided for three years in the monastery of *Ya-lan-lo* (Nālanda). Then he returned to the kingdom of *Ou-tchang-na* (Udyāna). He resided there in the monastery of *Mang-ngo-po*. The monastery of *Sou-ho-pu-ti* (Sukhavatī—in Chinese "the palace of the Sun"), and the monastery of *Po-mang-Pa'ti* (Padmavatī—in Chinese "Lotus"), were there.

During these pilgrimages, he visited all the holy places. There is not much difference between what he said and what was said by *Si-yu-ki*.²

He was reminded of our holy dynasty, of his father and mother and all his paternal and maternal relatives. That desire consumed his heart. He thought of the depth of kindness which had made those who nourished and brought him up,—kindness, which is as unlimited as the vast sky. He conceived the desire of returning to his country to see his prince and his parents. Prostrating himself, he asked the consent of *yue-mo-san-mei*.³ The superior, when he heard it for the first time, absolutely refused him. *Fa-kie* prayed with earnestness twice or thrice to give him his reasons. The superior had already gone to the country of *T'ang*, in the 9th *Tien-pao* year (750 A.D.) and he was not satisfied with *Mahācīna*. When he saw that *Fa-kie* had a real and profound desire of returning, he granted him what he asked for. Then with his right hand, he gave him the Sanscrit texts of *Che-li-king* (Daçabhami Sūtra) of *Hoei-hiang-luen-king* (Bhavasamkrānti ? sūtra) and of *Che-li-king* (Daçabala sūtra) which

¹ *Fa-hien* named the place *Samkūcyā*: *Hienue-Tsang* called it *Kapīlā*. See *Hienue-Tsang*, II, 390.

² *Si-yu-ki* or the *Memoirs on the western countries* by *Hienue-Tsang*.

³ This *yue-mo-san-mei* is no other than *che-li-yue-mo*, of whom he has spoken above. *Sung-kao-seng-Tehouan* preserved his name and it is not known for what reason it is found here modified.

formed together one volume. He gave him at the same time, the relic of a tooth of the great saint Çakya Muni. Taking all these objects on his head, he expressed his affection and weeping he gave him those presents to be offered to his holy sovereign for accrediting him. He hoped, in fact, that the earth of the *Han* should spread and raise a great advantage to all beings. *Fa-kie* received these presents and saluted him kneeling, with his forehead against the earth. Following these rites, with tears, he took leave. He then desired to embark in the sea for going back, but he thought of the obstacles, which are met with in the furious waves, and he decided to go back to the imperial country by taking the road of the North. Our Emperor—holy and divine, pacific and war-like, has a perfect virtue which spread far and wide, and a renown which moved the five Indes; his wisdom surpassed *Fou-hi* and *Hien-yuen* (celebrated legendary Chinese Emperors), his prestige dominated eight sides of the Universe, he loved and contemplated the three jewels, he honoured sincerely the unique vehicle; the foreign countries brought him gold, the interpreters, who spoke many languages, came to present him tribute. *Fa-kie* brought the relic and the sacred Sanscrit texts, which he had taken, from Central India up to the Chinese territory.

His Return Journey:

Among the countries which he traversed, there was among the fifty-seven tribes of Tokharestan, a city named *Kou-tou*. Not far from the city to the east, there is a lake, the water of which is very deep. *Fa-kie* was seen carrying the tooth and books, and passing along the southern bank. At that moment, the divine Nāga of the place thought that there was a relic, the earth trembled, black clouds gathered together, the thunder roared and flashed, and hail and rain fell violently. A big tree was not very far from the bank of the lake; *Fa-kie* sought refuge under that tree with all caravan. The branches and leaves fell. From the hollow of the tree, came out fire. Then the chief of the caravan told them all:

"Who has the perfect jewel, the precious, inestimable object of a relic? (He thought that somebody has one.) Otherwise, why the divine Nāga is so angry? Let that thing be thrown into the lake, and do not make all caravan experience such alarm." *Fa-kie* then expressed his desire with a suppliant heart: if he could return to his father land and be of use to the kingdom,.....he would be obliged to the power of the Nāga. From sunrise for four hours, he prayed most sincerely. The clouds dispersed and rain ceased. He thus succeeded in saving that miserable existence.

He advanced progressively and arrived at the kingdom of *Kin-mi-tche*; the name of the king is *Toen-san-li*. Then he reached the kingdom of *Ni-che-tche*, the name of the king is *Hai wei-mei*. Afterwards he came to the kingdom of *Che-ni*. Thus travelling, he passed three years. He surmounted a great number of dangers and difficulties. In sacrificing his body and exposing his life, his heart was resolute to be grateful to his country. He desired to serve his king and parents. The compassionate saint watched him with solicitude.

Then he came to *Sou-lei* (also called *Cha-lei*—Kashgar), the King at that time was *Pei Leng-leng*, the deputy-governor was *Lou Yang*. He rested there five months. He afterwards came to *Yu-Tien* (also called *Tsien-Toen* or *Houo-Tan*—Khoten). In Sanscrit it is called *Kiu-su-tan-na* (in Chinese it signifies the kingdom of mammals of the earth). The king is *Wei-tch'e-yao*, the deputy-governor is *Tcheng Kiu*. He stopped there 6 months. He arrived afterwards at the city of *Wei-jong*, which is also called the country of *Po-hoan*, the correct name is the country of *Pou-ou*. The deputy-governor is *Sou-Tchen*. He came afterwards to the city of *Kiu-che-to*: (the translation of the next phrase is uncertain).

Then he came to *Ngan-si*, there was the deputy administrator of "four garrisons," *K'ai-fou-i-t'ong-san-se*, *Kien-Kiao-yeou-san-ki-tchang-che*, great protector as second of *Ngan-si* and at the same time *Yu-che-ta-fou*, *Kouo-hun*. The King of the

country of *K'ieou-tse* (modern *Kutche*, on the river *Koksu*, which falls in the lake *Baba* in Chinese *Turkestan*), is *Po-Hoan* (also called *Kieou-tse*). The correct name is *Kin-tche*. Outside the Western gate is the temple of lotus in which is found a superior *Çramana*, whose name was *Ou-t'i-t'i-si-yu*. He earnestly begged him to translate *Daçabala sūtra*—there were about three pages which formed a chapter. The superior spoke with an equal ability the languages of “four garrisons,” of India, and of China. Buddha pronounced that *Daçabala sūtra* in the kingdom of *Çrāvastī*. In the territory of *Ngan-si* is found the mountain *Ts'ien-ts'ien* and the temple *Ts'ien-tsien*. There is another mountain *Ye-po-che-ki*. In that mountain there is water which falls by drops producing a musical sound. Once, in a certain date of every year, they are collected for making an air of music. It is why the temple *Ye-po-che* is constructed there. He remained in that city for more than a year. He came afterwards to the kingdom of *Ou-ki*, the king there is *Long Jou-lin*, the deputy-governor is *Yang Je-yeou*. He stopped there for three months. Then he started from there and came to the district of *Pei-ting*. The deputy administrator of that district, *Yu-che-to-fou Yang-sa-kou*, with the monk of the temple *Long-hing*, asked the superior *çramana* of the kingdom of *Yulien* (*Khoten*), *Che-to-ta-mo* (*çiladharmā*) to translate *che-ti-king* (*Daçabhūmi sūtra*). The superior read the Sanscrit Text and translated the words: the *Çramana Chan-sin* verified the sense, *Çramana Fu-kie* verified the Sanscrit Text and the translation. The version of *Hoei-hiang-luen-king* was made in the same manner. When the translation of the *sūtras* was finished and the copy was made, there came the general protector of “the four-garrisons” and of *Pei-ting*, the imperial envoy *Toan ming-sieon* at *Peiting* (in the thirteenth day of ninth month of fifth *tcheng-yuen* year, 789 A.D.—the year with *i-se* signs). With *Nicou-Hin*, secretary of the administrator and *intendant* of requests of that district, with *Teh'esg-Ngo*, *intendant* of the district and with

other persons, he followed the envoy for going to the court. At that time, as the river of sand (Gobi) was insuperable, he took the road of *Hoci-hou* (Ouigours). But as *Chen-yu* (the title of the king of *Hiong-nou*, a Turkish race) was not a follower of Buddhism, he did not permit him to carry the Sanscrit books with him. He left them at the library of the temple *Long-hing* at *Pei-ting* (Ourountsi). The Chinese translations which he had made, he brought them to the capital following the envoy. In the second month of sixth year, he arrived at the superior capital (790 A.D.). An imperial decree ordered him to reside in the hotel of Ambassadors at the *Ti-long* gate. The envoy of the court, *Toan ming-sieou* then took the relic of tooth of the real body of Çakya, also the translated sūtras and the presents to the palace. The imperial kindness transmitted them to *Tso-chen-ts'e-kium* with the order to copy the text of these sūtras and to bring at the same time the tooth-relic of Buddha. Then *Tso-kie-kong-to-che Tao ien tch'ang*, after having made the copy according to the edict, presented it to the palace and made this request: "The monk *Ou-k'ong*, who has no titles and who has come from *Ngan-si*, is aged 60 years. His former name was *Fa-kie* his family name was *Kin* and personal name *Fong-tch'ao*. I ask that he may reside in the *Tchang-king* temple." That year, on the twenty-fifth day of the second month (*Ou-ko'ng*) received a decree which conferred upon him a real rank: the rest was done according to the request.

Moreover, the *intendant* of requests of the administrator of the district in question made a request on the subject of titles (to be accorded to) him who is called in the world *Kin Fong-tch'ao*. On the fifteenth day of the fifth month, an imperial decree conferred upon him the titles of *Tchoang-ou-tsiang-kium*, assistant officer to *cheou-tso-kin-ou-icei-ta-tsiang-kium*, and *che-l'ai-tch'ang-k'ing*. Besides, there was an imperial decree in these terms: Decreed: "That *Nieou Hin*...and his companions have made a travel by which they have passed

from *Leou-cha* (desert of Gobi) up to the Western kingdoms. They have received inspiration from the three hosts to reform themselves, they have augmented the desire of tying the places situated at 10,000 *li* from the court, they have marched through rains and clouds without getting tired, the tribute that they have brought arrived well, they have increased the glory of *Fan k'iang*, realised his desire, they have recalled the memory of *Pan Teh'ao* going far; that they be elevated to the important grade to encourage the ambassadors. It conforms to the precedents."

That year, therefore, he whose former name was *Fu-kie* and who was now called *Ou-k'ong*, having obtained from the imperial favour a veritable title, at the same time the right of carrying the hat and boots of the officer, received these honours in impressive confusion, doubting his capacities and believing himself to be indigent. He, therefore, withdrew to the temple *Tchang-king*. He, then, returned to his native country; he found that the trees planted on the tombs of his parents had already become great, that there was not one among his brothers and cousins. In his whole travel, he had passed forty years; it was in *Sin-mao* year (751 A.D.) that he had started for the West, and now, it was *keng-ou* year (790 A.D.) He regretted for not having maintained his parents, but he rejoiced having met with a favourable epoch. The tooth and sūtras which he offered, he wished to present them to the sacred longevity of the Emperor. *Che-ti-king* (Daṣabhumī sūtra) which he had translated during his travel and which he now offered in manuscript formed a work of 121 pages collected in nine chapters. Buddha at first, for coming to the good thought, passed two weeks, then changing the form, in the residence of the god Maheṣvara, in the palace of secret treasures of gems, he exposed that sūtra. *Hoei-hiang-luen-king* was exposed by Buddha, when he lived on the peak of mountain Vajra-maṇi-ratna with the great Bodhisattvas. The translation formed three

and a half pages which constituted one chapter. As for *che-li-king* (Daqabala sūtra), as said before, the translation formed three pages which comprised again one chapter. Three works in all made up 129 pages and formed eleven chapters comprising one book. Considering, however, that the sūtras are not comprised in the catalogue, and believing that, when numerous years and months will pass away, it may not be suspected that those were apocryphal books, he said:—"Now, I ask that they be inscribed thus—*written under the T'ang, during Tcheng-yuen (785-804) period, of the catalogue of Buddhist religion made during the K'a:-Yuen (713-741) period.* Now, since I have taken permission from the holy T'ang dynasty till to-day, there are four generations (of emperors). Under the deep mist and clouds, which overwhelmed me, I have passed forty years. I have made pilgrimage to adore the holy vestiges. The kingdoms and cities, which I have traversed, in some I have made lonely visit of adoration, in others I am belated ten days, in others I have passed many ten days, in others I rested many more months, and in others again I have stopped one or two or three or four years. Sometimes I have made happy encounters, sometimes I have been face to face with terrible brigands. The moments of joy have been few, the subjects of affliction have been numerous. I cannot disclose all my heart in speaking in detail. I have the happiness of meeting a bright sage, who has a general high manner, which is essential. I hope that by his beneficent conduct, he will spread and propagate the religion for many generations."

I, the Āramana Yuen-Tchuo, I am only a man of little genius and have no literary talent, but I rejoice having found a favourable time for honouring the translation a second time. I have composed a "continuation to the Memoir by Tables" for describing the true vehicle, and I have composed at the same time "the sequel written during the K'ai-Yuen period" (713-741). The *bhaddanta* Ou-k'ong has related all his

travels, and confided to me the account with care, to annex it to the Tables and to the catalogue and to make it a guarantee to what is said. During many years of continuation I have asked and traced up the beginning. I have received with respect his oral explanations. With my imperfect style and my incompetent ideas I have put them in order.¹

PHANINDRA NATH BOSE

¹ From the notice consecrated to *Yuen-Tchao* in *Song-Kuowang-tchao* (Ch. XV, pp. 29-30), we learn that he had *Tchao* as his family name and that he was born at *Lun-Tien*. In 778, he was charged with thirteen other monks with a considerable work bearing upon the revision of ancient and new explanations of sacred books. Among the numerous works of which *Yuen-Tchao* is the author—*Pan-Ju-san-Tsing-sin-Kou-Kiu-fan-i-tou-Ki* in three chapters or sequel to the *Memoirs by Tables of ancient and modern translations*, composed by the master of Tripitaka, *Prajñā*; and *Tchong-yuen-sin-K'ui-yuen-che-kiao-lou* : three chapters, or sequel written during the *Tchong-yuen* period of the catalogue collected during the *K'ui-yuen* period. *Yuen-Tchao* died at the age of eighty-two, but we do not know on what date.

GLOOM AND GLOW*I. Despair.*

So sweet is life, so sweet is love,
So hard it is to die;
This joy begone, this light put out,
Be-still'd for heart heart's cry.
The beauty, called the human form,
Dissolved in nothingness!
The thought a pain, the words a groan,
So horrid to express.
When death has done its cruel work,
Hear my muttered cry,
Tell me, tell me, man of mercy
Shall I then still be I?
Oh! shall I love and shall I think
When death has come and past;
Or shall I then be empty naught,
Or in some form be cast?
Of heav'n I've heard, I've heard of hell,
But what of them I know?
O! tell me shall I love and think
Whatever death may now.

II. Hope.

O, what will happen after death,
Thy vex'd spirit asks;
A confused mass of words alone
Presents but hopeless tasks.

No moment's time thou canst be sure
Then how ensure the end ?
What can be done is left undone
For what no thought can mend.
Of heaven and hell thou much hast heard ;
But how to put to test
What some men teach and more men doubt—
The worst and the best ?
What follows Death will follow death
The present is thy own ;
As thou hast sown so thou shalt reap
In ways to man unknown.
True love of God and man is heaven.
If this is thine, 'tis well ;
If love's expelled from heart and act—
'Tis hell ! 'tis hell ! 'tis hell !

III. Death the Deliverer.

I can but see what sees the eye,
The eye can but the little see.
I can but hear what hears the ear,
The ear can but the little hear.
I can but feel what feels the skin,
The skin can but the little feel.
I can but mind what minds the mind,
The mind can but the little mind.
I can think but little thoughts
Of things I am by senses told,
Them I arrange and rearrange
And spend on thoughts most learned lore.
O, come thou sweet Deliverer,
On mercy's errand come apace ;

Break prison bars, break captive bonds,
And quick my jailor take to jail ;
The bondage of the senses break,
The sway of littles sweep away,
I shall live and think and love
As does my God, and thy God, Death—
All-doer, knower, lover, all.
By being free of sense and mind,
Of nature His I shall partake—
But that's above thy might, O Death.
The bar removed—thy duty ends ;
To willing souls free grace He sends.

IV. Divine Symphony.

Thou sendest forth the Day, 'tis Day,
Mysterious Night hides Day away ;
As Moon withdraws her humid rays
The red Sun rises as Thy praise ;
From Life's tree old, sere leaves are shed,
Green, luscious youths and maidens wed ;
The spring is born, the winter ends,
The heat expires, the rain descends ;
The flow'r decays, the fruit matures,
As poison kills, as med'cine cures ;
Sun, Moon and Fire their tasks perform,
Dread earthquake, famine, flood and storm ;
Birth, growth, decay, death, right and wrong
Are notes of one celestial song ;
White Peace, Red War alike in Thee
Melt in serenest symphony ;
O ! Blessed they who have the ear
The symphony divine to hear.

SAYYID ŠADR-UD-DĪN AĤMAD¹

At the end of his work² 'Rawāiḥ-ul-Muṣṭafā' Sayyid Šadr-ud-Dīn Aĥmad bin Karīm-ud-Dīn Aĥmad ul- 'Alawī ul-Mūsawī ul-Hanafī ul-Qādirī ul-Bāḥārī ul-Bardawānī, gives a detailed account of his life and family. He traces his descent from Imām Mūsā Kāzim. Sayyid Husām-ud-Dīn, an ancestor of the donor, married the daughter of Nusrat Shāh, brother of Fīrūz Shāh, and settled in Atrah, two miles from Bāḥār. The conquest of Bengal by the Timurides scattered the family, some members settling in Dhulsar. The donor's great-great-grandfather, Sayyid Muḥammad Šādiq, settled in Bāḥār. He and his wife became the disciples of Sayyid Shāh Gulam 'Alī Dastgīr of Shāh Bazār. Muḥammad Šādiq had two sons, Sayyid Šadr-ud-Dīn and Sayyid Sirāj-ud-Dīn. Sayyid Šadr-ud-Dīn was studying at Murshidābād under the protection of a noble of that place, when he made acquaintance with Mīr Muḥammad Ja'far 'Alī Khān, then only a school boy. They lived together, and when the former was elevated to the *Mansab* of Murshidābād, Sayyid Šadr-ud-Dīn was appointed *Munshī*. He afterwards became *Mīr Munshī*, and later on the *Madār-ul-Maḥām* of the *Nizām*. After a time he returned to Bāḥār and married Daulat-un-Nisā, daughter of Qāḍī Tālib Ullah of Jhīlū. Siraj-ud-Dīn, his brother, was married to Hāfizah Bibi, daughter of Sayyid Bahādur Husayn of Naldāngā in Huglī. When Lord Clive went to Murshidābād to settle the terms of the *Nizām*, Sayyid Šadr-ud-Dīn was deputed to act on behalf of the *Nāzim*. He enjoyed the favour of Shāh 'Ālam, who appointed him Mutawallī (Trustee) of the Bā'is Hazārī Parganah of Bengal, the *Waqf* estate of the eminent saint Sayyid Shāh Jalāl-ud-

¹ Donor of the Būhar Library (Imperial Library).

² Lithographed in Cawnpore, 1849.

Dîn Tabrizî Ganjrawân Ganjleakhsh (d. A. H. 642=A.D. 1244), who came to Panduah in Rāj Shāhī in Bengal, in the seventh century of the *Hijrah*. Sayyid Ṣadr-ud-Dîn subsequently attracted the notice of Warren Hastings, whom he assisted in the settlement of Bengal, Bihār and Orissa. He founded the Jalāliyah Madrasah, which attained a wide reputation under the principalship of the celebrated Maulānā ‘Abd-ul-‘Alī Bāḥr-ul-‘Ulūn. The date of the building is A.H. 1189=A.D. 1775. Sayyid Ṣadr-ud-Dîn attached the Jalāliyah Library, now designated the Būhār Library, to the Madrasa, and also a Mosque, built in A.H. 1187=A.D. 1773. Sayyid Ṣadr-ud-Dîn had a son, Sayyid Kafil-ud-Dîn, the donor's grandfather, and a daughter Bint-ul-Fātimah by his second wife, Jugnā Bibī, daughter of Sayyid Wāḥid ‘Alī of Murshidābād. By his first wife Daulat-un-Nisā Bibī, he had no children. He died, fourteenth Ramaḍān, A.H. 1211=A.D. 1796, at the age of seventy-five. Sayyid Kafil-ud-Dîn wasted his property. In his old age, then reduced to extreme poverty, he became a disciple of Shāh Nūr Muḥammad *Naichahband*. He married Zuleaydah Bibī, daughter of Sayyid Muhammad of Hugli, and died in A.H. 1243=A.D. 1827, leaving a son, Sayyid Karīm ud-Dīn Aḥmad. Karīm-ud-Dīn married Khayr-un-Nisā, daughter of Muḥammad Ṣājid Ṣiddiqī, and died in A.H. 1274=A.D. 1857, leaving three sons, Ṣadr-ud-Dīn Aḥmad, the donor, Sayyid Sirāj-ud-Dīn, Sayyid Ṣaḥī-ud-Dīn, and a daughter, named Ma ‘Ṣūmah.

The donor was born in Būhār, A.H. 1259=A.D. 1843. He received his early education from Sayyid Izad Bakhsh. He spent most of his time in studying, particularly historical works. In his autobiography he speaks of a series of family misfortunes and troubles, and of having suffered imprisonment. He obtained release only after spending more than forty thousand rupees. He regained his former position in society, and served the government and the public in various capacities.

He was a good oriental scholar, and we owe to him the works *Darb-ul-Masâlib* and an edition of the *Târikh-i-Nasâ'i*. He is also reported to have written a reply to Shibli Nu'mânî's *al-Fârûq*, which remains unpublished. A large number of the manuscripts of the Bâhâr Library contain notes from his hand, showing how attentively he had perused them.

How extensive the Bâhâr Library was at the time of the decease of Sayyid Saûr-ud-Dîn is not known. Much is understood to have been lost between that date and the assumption of charge by the donor about the middle of last century. It then consisted of only 100 manuscripts and some printed books. By 1905 it had grown by purchase, as well as by the addition of copies of manuscripts in other Indian libraries, to a collection of four hundred and sixty-six Arabic manuscripts, four hundred and eighty-three Persian manuscripts, one Turkish manuscript, and one Urdû manuscript, besides about nine hundred and forty Arabic, four hundred Persian, and one hundred and forty Urdû books, printed or lithographed. This growth was due entirely to the enthusiastic spirit of the donor.

It was the same spirit that dictated the wish that the Bâhâr Library should remain intact for the use of all succeeding generations of Arabic and Persian scholars. To secure this the donor presented the library to the Government of India under an agreement in 1904. In accordance with the agreement the Bâhâr Library, which is always to be so designated, is preserved in a separate room in Metcalfe Hall in Calcutta.

The donor died in 1905, less than a year after the presentation of the library to the Government of India.

ABDUL MUQTADIR

PHYSICAL OBSERVATIONS DURING A TOTAL SOLAR ECLIPSE

The occurrence of a total solar eclipse is a phenomenon of unusual interest to the astronomer. It affords him an opportunity of studying physical conditions in the sun on a scale which is not otherwise available. The memory of the last eclipse which we had, may be still fresh in the public mind. It occurred on the 29th May, 1919, and is celebrated as the occasion, on which Prof. Einstein's famous predictions about the deflection of light rays by the gravitation field of the sun was verified. Another total eclipse is coming shortly—September 21st, 1922—and this time the track of the moon's shadow will sweep across the Indian Ocean from the Maldive Islands to the West Coast of Australia passing close to Java. The chief item in the programme is to obtain fresh support for Einstein's theory by securing photographs of stars during the moments of totality.



Prof. Albrecht Einstein.

But the interest and importance of a total solar eclipse to the astronomer is older than Einstein by at least six decades. It began from the year 1859 when Kirchhoff in Germany discovered spectrum analysis and placed in the hands of scientists a method which enabled them to study the chemical composition of not only terrestrial minerals, but also of such distant and unapproachable bodies as the sun and the stars.

To the unaided eye, the sun appears as an intensely bright circular disc. But about this disc (which is known in the astronomer's language as the **photo-sphere**) there is an atmosphere (known to the astronomer as the **chromosphere**) of glowing gases. We cannot see this atmosphere in broad daylight because it is lost in the general glare of the sun; for the same reason the stars and the planets are not visible in daytime. If somehow the bright disc could be veiled, the atmosphere would be visible to the naked eye.

Fortunately for us, this is done by the moon during a total solar eclipse. The moon comes just between the earth and the sun and sends out a conical shadow with a maximum diameter of 168 miles at the point where it meets the earth. The shadow sweeps across the surface of the earth with a minimum velocity of 1,000 miles per hour (almost the same as that of a cannon ball). To all persons lying within the track of the shadow, the disc of the sun becomes invisible for the maximum period of nine minutes (equal to $\frac{1}{6}$ hours). This is known as the period of totality. It is well to bear in mind that 9 minutes is the greatest possible duration of totality. The actual period of totality may be anything from 9 minutes to nothing.

In ancient times when people had not yet learnt to calculate the date and time of a total solar eclipse in advance, and await the phenomena with stoic indifference, such occurrences often gave rise to much terror and superstition. This is scarcely to be wondered at, because people lying within the zone of totality suddenly find themselves plunged from bright

sunshine into the deepest gloom. The sky-light is so much reduced that planets and big stars and sometimes stars of the third or the fourth magnitude become visible. The transition is extremely sudden and abrupt. (It is said that once in ancient times, two contending armies were caught up in a total solar eclipse and were so much smitten with fear that they broke action and fled away in panic.) In a few minutes, however, the gloom passes away, giving place to full sunshine.

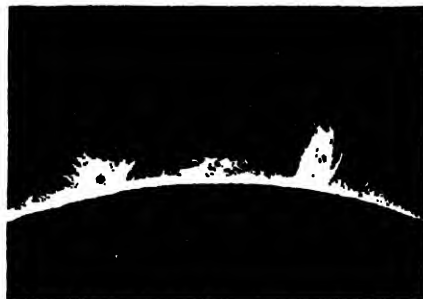
Let us see how the astronomers use these precious few minutes. They are precious, not only on account of the extreme shortness of duration of totality, but also because of their rarity. 13 total eclipses occur in a period of 18 years 10 $\frac{1}{3}$ days (usually known as the Chaldean Saros after the nation which discovered this period), yet only a minute fraction of the earth's surface is fortunate or unfortunate to receive them. It is calculated that if a total solar eclipse happens to occur once in a certain place, the probable time that will elapse, before it occurs there again, is 360 years. "Nine minutes once in 360 years" has certainly a claim to be called precious.

Before the discovery of spectroscopy, the programme was limited to the observation of the gradual progress of the moon across the sun's disc with the aid of a telescope (with the usual darkening devices). Four stages are distinguished. The moon just touches the disc of the sun (**first contact**), then gradually creeps along the disc making the intersected crescent thinner and thinner; this occupies about an hour. The cusp is gradually reduced to a line, and then vanishes abruptly. At this point, the moon just touches the disc on its inner side (**second contact**), and totality begins. The photo-sphere is completely veiled.

The maximum possible excess of the moon's disc over that of the sun is only 70"—so that within at most $\frac{1}{4}$ minutes of second contact, the moon creeps along and touches the sun's disc at the point opposite to that of the second contact (**third contact**), totality is now at an end. The moon continues

to creep on, the thin crescent gradually waxes, till the two discs separate (4th contact). Eclipse is now at an end. For the astronomer, the period between the 2nd and 3rd contacts is most valuable.

While carefully watching the progress of the eclipse through the telescope, it was observed by Airy and many other observers, that at the moment of second contact, when the cusp of the sun just disappeared, red columnar flames shot out across the field of vision. To these the name 'Protuberances'



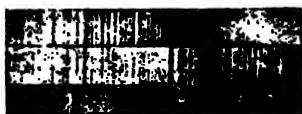
A Typical Solar Prominence photographed during the total solar eclipse
May 29, 1900 (From Hale's Stellar Evolution)

or **Prominences** were given, but opinions were divided about their physical nature. Some said that they were parts of the moon, others said they were illusions, while a few held that they were huge jets of gas projected from the surface of the sun forming part of a general solar atmosphere.

The controversy was settled by the Italian Padre Secchi, and by Warren de la Rue taking a series of photographs of the solar atmosphere during a total eclipse in 1860. These photographs established beyond doubt that the **prominences** formed part of the sun, and consisted of luminous masses emitting rays of great actinic power.

But the most imposing sight about the sun during the moments of totality is a magnificent luminous halo extending

to great distances in free space. Very often, this luminous halo is topped with bright pointed arches, which give it the appearance of a crown. Hence the name "**Corona**" has been given to it. It seems to have been observed at a very early time, for it was known to Kepler and Galileo. Since 1851, innumerable photographs of the corona have been secured, showing great variety of form, and extension.



The lower figure represents a Photograph of the Solar Corona (from Hale's Stellar Evolution).

Near about the solar disc, the coronal light becomes more intense, and passes into a brilliant red ring of light, to which the name '**chromosphere**' has been given. The observation of the corona, the chromosphere, and the prominences formed the chief items in the older eclipse programmes. But laterly, methods were devised by means of which, the chromosphere and the prominences can be observed in full daylight.

Application of the spectroscope to solar physics.—In 1859, Kirchhoff announced to the world the news of his discovery of spectrum analysis. The effect of this discovery may be likened to the annexation of a fresh world of knowledge to the domain of human intellect. Newton had shown about 1680 that solar light consists of the seven colours of the

rainbow. In 1813, Fraunhofer, then a humble spectacle-maker of Munich, surprised the scientific world by his announcement that the solar spectrum was not continuous, but was intersected in places by fine dark lines. These dark lines remained a perfect mystery for about forty years in spite of many efforts by scientific men to explain them (or rather explain them away). But Fraunhofer recognised that deep meaning might be hidden in them, measured and catalogued them for future use.

The explanation, which we owe to Kirchhoff, is as follows.

Continuous spectrum
and Line spectrum.

A piece of white-hot iron or the glowing carbons of an arc emits a continuous spectrum. A gas on the other hand, emits a line spectrum. If a flame is sprinkled with the salt of some metal, it is well known that it is tinged with definite colours. Thus sodium salts tinges the flame yellow, strontium makes it red, copper makes it peacock-green. On spectroscopic examination, these colours are resolved into a number of fine bright lines: which are characteristic of the element present in the flame. Thus sodium emits two lines in the yellow, copper emits a number of lines in the blue, and every element has its own array of lines. It was observed, by Fraunhofer himself, that the yellow lines of sodium were identical with the dark lines D_1 and D_2 of the solar spectrum. Later observations showed that most of the Fraunhofer lines could be identified with the lines of elements known on the earth.

With the aid of new ideas on emission and absorption of radiant energy, these facts were woven by Kirchhoff into a consistent theory of the Fraunhofer spectrum. This explanation is now a matter of common knowledge. The continuous spectrum comes from the highly condensed central nucleus (photosphere) of the sun, which emits like a solid body (this does not mean that the nucleus is solid—the more probable theory is that the nucleus consists of highly compressed gas). The light from the photosphere has to pass through a surrounding thinner atmosphere in which all terrestrial elements *e. g.* iron,

sodium, calcium, etc., are present in the state of vapour. These vapours act like filters, and rob the continuous spectrum of the light which they themselves can emit. Thus sodium vapour in the solar atmosphere absorbs the D₁ and D₂ light from the photospheric spectrum; they also emit the same light, but the intensity is very much smaller owing to the lower temperature of the atmosphere. The transmitted light which is made up of what remains of the photospheric light after absorption plus the light emitted by the vapours themselves is less intense than the original beam from the photosphere. Hence the beam appears dark in comparison.

Fraunhofer spectrum
and reversal of lines.



The upper figure shows the Sodium lines in arc, and in the sun.
The lower figure shows the coincidence of iron lines in the arc with those in the Sun (Hale, *Stellar Evolution*).

It is well to bear in mind that the darkness is only comparative. In reality, the dark lines are as intense as the lines of the flame or sometimes of the arc, as is proved from the fact, that with sufficient exposure, all parts of the photographic plate become dark. It naturally follows that if the photospheric light could be somehow cut off, and the solar atmosphere isolated, its spectrum would be found to consist of bright lines like that of a gas. *In place of each dark Fraunhofer line, we shall get a bright line, in other words, the spectrum of the solar atmosphere would be a complete reversal of the Fraunhofer spectrum.* This opportunity is afforded only during the

moments of a total solar eclipse. It may be supposed that if we hold a sufficiently large disc before the telescope, so as to cover the photosphere completely, our object would be achieved. But this is not so. Besides getting light direct from the sun, we get light from all parts of the sky, which is simply sunlight scattered by the dust and air molecules of the atmosphere. The intensity of the sky-light is sufficient to mask the solar atmosphere completely. The bigger the disc the less intense will be the sky-light, but it **actually requires a disc as big as that of the moon to make the solar atmosphere at all visible.**

The importance of a total solar eclipse will now be quite evident, but the reader must not underestimate the difficulties. It is very difficult to catch the exact moment of totality. Then the moon shoots across the surface of the sun with tremendous velocity, covering 270 kms. of the solar surface per sec. Hence if any **spectroscopic study is to be made about the 100 kms. just next to the solar disc, it must be started and finished with $\frac{1}{3}$ of a second beginning from the instant of second contact.**

At first astronomers concentrated their attention on the observations of the spectra of red prominences, which extend to great heights, and can be observed for a considerable length of time. Observations of the spectra of red prominences stood in the forefront of the expeditions to observe the total solar eclipse of 1868, which passed over India. Parties were organised by the French, English, and American astronomers, but success was reserved for the Frenchman **Jansen**. But before relating the account of this success, we must mention

the appearance on the scene of a very remarkable personality—the late **Sir Norman Lockyer**—one of the greatest figures in solar physics, and one who was destined to influence the course of astrophysics for the next fifty years. Lockyer was, at this time, earning a small pittance as a humble clerk in the Admiralty. He was a man without regular University education,

Spectra of Prominences.

but what he lacked in routine education was made up by his energy ("tumultuous" is the adjective with which his biographer describes it) insight, and great powers of organisation, and above all his love of the subject. Lockyer hit upon the bold idea of photographing the spectrum of the red prominences in broad daylight, and with his own scanty means, set about the work in great earnest.

Lockyer recognised that the chief difficulty in his way was the sky-light, which, as explained before, completely makes all light from the solar atmosphere. The sky-light is simply solar light scattered by the terrestrial atmosphere, and its spectrum is the same as that of the sun. So a method had to be found by means of which the sky-light could be weakened, while the intensity of the line spectrum from the prominences would remain unaffected.

The way in which this was effected occurred independently and simultaneously to Lockyer and Jansen, under different circumstances. It is this—suppose we have a spectroscope consisting of simple prism, and observe with it the continuous spectrum of sky-light, and line spectrum of say a Vacuum tube. Suppose, the total length of the continuous spectrum between C and F is 3 cm. Now let us add another prism having the same dispersion. The length of the spectrum (C—F) will now be 6 cm. the intensity of the continuous spectrum will therefore be halved. The intensity of the individual lines of the line spectrum would however remain unaltered, for they are monochromatic. If we have n prisms, then neglecting the weakening in intensity due to absorption and reflection, the intensity of the continuous spectrum would be reduced n -times, that of the line spectrum would remain unchanged.

The perfection of the experimental method was, however, not the only difficulty which Lockyer had to encounter. The prominences were shown by Sechhi to be isolated masses, scattered irregularly over the solar disc.

Nobody know at which part of the sun's disc one had to look for them. So we need not wonder why it was after three years' labour that the difficulties of the work were overcome. In October, 1868, Lockyer succeeded in photographing the spectrum of the protuberances in broad daylight.

But Lockyer had to share the honours jointly with Jansen. While engaged in the eclipse observations at Guntoor, it occurred to Jansen that the spectrum of the protuberances might be photographed in daylight, and the same method which was being perfected by Lockyer occurred to him independently. He was however more fortunate than Lockyer, for from his observations during the total eclipse, he had come to know the exact spot where he had to look for the prominences. Not only that, his observations showed that the most prominent line in the prominence spectrum was the C-line of hydrogen, not the sodium D-line, which had monopolised all the attention before this time. Jansen confirmed this on the next day by actual observation, and was so elated with success that he telegraphed to Paris "We have now total solar eclipse for the whole day." The observation was continued up to the 4th September; and then posted to France.

Indian Eclipse Expeditions of 1868.

Jansen's observations were made at Guntoor in India. The news of his discovery reached Paris on the 26th October when it was read by Faye before the Paris Academy. By a mere accident, the news of Lockyer's discovery reached the Academy the same day. To commemorate this event, the French Government struck a medal containing, on one side, the effigies of the two astronomers, on the other side, the Sun god carried away as a captive in a chariot drawn by four horses and containing the inscription "Analyse des Protuberances Solaires, 18 Aout, 1868.

Shortly after Lockyer's discovery, Huggins showed that by placing the slit tangentially to the solar disc, and opening

it rather wide on the side of the chromosphere, the whole protuberances could be observed. In 1892, Hale in America, Deslandres in France, and a little later Evershed in India discovered an instrument called the **spectroheliograph**, by means of which it is possible to photograph the prominences in broad daylight. Photographing the prominences is now a regular routine work at Kodaikanal, Mount Wilson, and many other solar observatories. Mr. Evershed of the Kodaikanal observatory has observed a huge number of prominences and published them in a book form.

In many respects, Lockyer went further than his contemporaries. He confirmed Sechhi's view that the protuberances were elevations from a continuous atmosphere surrounding the sun, for which he in conjunction with his friend Frankland suggested the name **chromosphere. (sea of colours)** He showed that the D-line of the protuberance spectrum was not identical with the sodium lines, but its wave-length was considerably shorter (5876 against 5890.96 of D_1 and D_2) He called it D_3 . It is not represented in the Fraunhofer spectrum, and was ascribed by Lockyer to a new element still undiscovered on the earth.

He christened this hypothetical element Helium, after Helios, the Greek name for the sun-god." Thirty years later, Helium was discovered by Ramsay in the Norwegian mineral Clevite.

But the proof that the spectrum of the chromosphere would be the reversal of the Fraunhofer spectrum was not yet forthcoming. Instead of showing thousands of bright lines the spectrum of protuberances showed only a few bright lines (11 in all).¹ This discrepancy cleared itself in 1870.

Prof. Young of Princeton, was observing a total solar eclipse on Mt. Sherman. With the slit of his spectroscope tangential to the sun's limb, and perpendicular to the moon's advance, he was awaiting the moments of the second contact. "The thin solar crescent narrowed second by second, then "all at once, as

¹ In 1870, Lockyer showed that the spectra of protuberances showed hundreds of lines.

suddenly as a bursting rocket shoots out its stars, the ordinary Fraunhofer lines previously visible were replaced by a serried array of bright lines on a dark background. This seemed a

The spectrum of the complete reversal of the familiar absorption-
chromosphere. rays and the impression was also conveyed
to Mr. Pye, a member of the same party." (The description
is taken from Mrs. Clerke's Problems in Astrophysics).

This flash-like reversal had been looked for, and been confirmed. But a photographic record could be taken only 26 years later in 1896, by Mr. Shackleton at Novaya Zembya, during the Arctic Eclipse of 9th August, 1896.

In this expedition, a prismatic camera was used. It is a simple form of spectrograph, without slit and collimating lens. The slit is unnecessary, because at the moment of totality, the source of light is the thin crescent-like part of the solar chromosphere intercepted by the moon's disc. By means of the prism, this thin crescent shaped source of light is drawn out into a series of monochromatic images. Some of these arcs are long, others are short. The

Flash spectrum. employment of this apparatus in eclipse work
is mainly due to the initiative of Lockyer. It is generally known as the **Flash spectrum**, on account of the flash-like rapidity with which it appears and disappears.

A magnificent opportunity presented itself in the year 1898, Jan. 22, when there was a total solar eclipse passing over India. Photographs of the flash spectrum and the corona were secured by Lockyer at Vizianagaram in the Bombay Presidency, by Evershed at Talni, and by Naegamvela.

The full story of these expeditions is told by Lockyer himself in the pages of the Philosophical Transaction, Vol. 197, 1901, and by Evershed in the same journal. At Vizianagaram totality
began at 12 h. 45 m. 53 s. and lasted for 127 seconds.

Indian Eclipse Ex-
peditions of 1898.

Between 1870 and 1890, Lockyer had planned several expeditions, but owing to unforeseen accidents, all of them came to naught. The inclusion of eclipse observation in the Arctic expedition of Shackleton was due to Lockyer's initiative, but he was prevented from being personally present.

Many photographs of the flash spectrum were secured, one set with a six inch prismatic camera, the other set with a nine inch camera. Photographs of the corona were secured : and its spectrum was also observed, though not very satisfactorily.

The eclipse of 1898 was the first occasion in which, there was no mishap, the programme went like clockwork. The ice being once broken, all the subsequent total eclipses have been fully exploited by astronomers, English, American, Dutch, French and German. But anything like an account of these expeditions is quite out of the question.

All eclipse expeditions did not prove successful. Sometimes at the psychological moment, clouds gather in the field of view spoiling all labour and money. Sometimes, the occurrence of the eclipse causes disagreeable activity among the surrounding populace. One eclipse expedition to India is said to have been completely spoilt by some jungly tribes setting fire to forests at the commencement of the eclipse. In 1914, owing to the outbreak of the Great War, the British expedition to Crimea in south Russia had to beat a precipitate retreat, abandoning all the instruments, which were never recovered.

Up to 1919, the programme had not much varied. The items were —

(1) Precise observations of the times of four contacts; these observations determine with great accuracy the relative positions of the sun and the time at the moment, and serve as useful data in the theory of lunar motion.

(2) The search for a possible intramercurial planet.

Mercury is the innermost planet of the solar system, but accurate observation of Mercury does not follow the Newtonian law of Gravitation; the apse-line has a progressive motion of 540" per century, of which 43" cannot be accounted for by the law of gravitation. The observed perturbation was formerly supposed to be due to the presence of a hypothetical planet between the sun and mercury, and the

Physical observations during a total solar eclipse.

name "Vulcan" was coined for it. If such a planet really exists, it may become visible during the moments of totality.

But "Vulcan" has never turned up. The Perihelion motion of Mercury is now explained completely by Einstein's theory of Generalized Relativity. So it seems doubtful if Vulcan at all exists.

(3) Photographic records of the form of the "Corona" and photometric measurement of the intensity of Coronal light.

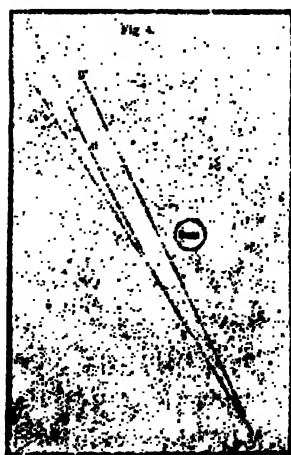
The Corona is an essentially "Eclipse Phenomena" as all attempts to photograph it during daytime has failed. At outer regions, it is only half as intense as the full moon.

(4) Certain meteorological observations, such as effects on the thermometer, the barometer, and the magnetic elements of the earth. (L. Bauer of the Carnegie Trust has specialised in this line.)

(5) Examination both visual and photographic of the spectra of the flash, the corona, and the prominences.

This item is by far the most important in an eclipse expedition.

Since 1919, another item has been added to the programme:—The verification of Einstein's prediction that rays of light would be deflected on passing close to the disc of the sun. The predicted deflection is $1.74 \frac{r}{R}$, where "r" is the semi-diameter of the sun, R is the angular distance of the star from the centre of the sun.



(From Laue's Relativitätsprinzip) Diagram showing the deflection of light-rays.
The star at D is shifted D" (S) represents the sun.

Photographs of the field of stars about the sun are secured during the moments of totality. These photographs are compared with another set secured either before or after this event, when the sun is not in this region of the sky. The comparison reveals any displacement which star might have suffered owing to its rays having to pass close to the sun's disc during the moments of totality.



From Laue's Relativity's prinzip. Photograph of the field of stars about the sun secured by the British Expedition at Sobral. The corona is also shown. The second figure shows the result diagrammatically.

It is hardly necessary to add that the results of the British expedition of 1919 confirmed Einstein's predictions in a most brilliant manner. The coming eclipse is also said to present a very favourable opportunity, as the field about the sun contains a number of sufficiently bright stars. A method proposed by Prof. Lindemann of Oxford of securing photographs of stars in daytime in infra-red light was tried by Evershed, at Kodaikanal but did not yield any positive result.

Results of the spectroscopic examinations.

Interest in these observations has somewhat flagged of late owing to the sensational nature of Einstein's prediction,

but this attitude is scarcely to be justified. The results which have accrued from these observations are highly interesting and present a number of problems still awaiting solution.

We have already remarked that Rowland measured about 20,000 dark lines in the solar spectrum in the region between 3000 A.U. to 7800 A.U. A number of these are due to absorption by the gases of the earth's atmosphere. About 6,000 have been identified with the lines of known elements. Altogether about 45 elements are known to exist in the sun.

The total number of lines recorded in a flash spectrum is not so great, owing to the limitations imposed on the power of instruments which can be carried to the eclipse station, and the short duration of the eclipse. Evershed counted about 1,500 lines on his plates, Mitchell in America, using instruments of higher power during the total eclipse of 1905, increased the number to 2500



(From an article in the Phil. Trans., Vol. 197, by Evershed.)

The uppermost figure is the spectrum of the thin solar cusp just before totality. The middle one represents the spectrum of an artificial cusp on an ordinary day.

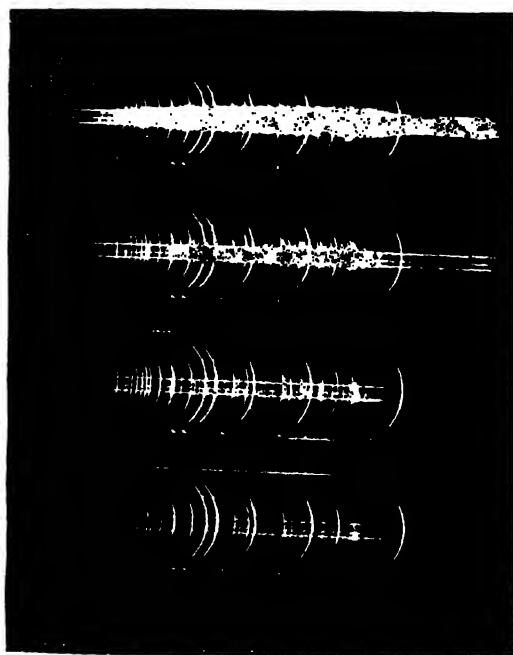
From these observations, it appears that the flash spectrum

is mainly a reversal of the Fraunhofer spectrum,—that is to say,—corresponding to every dark line of moderate intensity

Peculiarities of the
Flash Spectrum.

in the Fraunhofer spectrum, there is a bright line in the flash

spectrum. But there are a lot of important differences. We have already alluded to the discovery of helium in the sun. A scrutiny of the Fraunhofer spectrum reveals not the slightest trace of a single helium line. On the other hand, more than 15 or 20 helium lines occur in the flash spectrum and some of them, *e.g.*, the D_3 line—rival the lines of hydrogen in brilliancy. Helium is certainly present in the sun, but why it fails at all to appear in the Fraunhofer spectrum is still wrapped up in mystery.



Flash Spectrum.

(From an article by Lockyer in the Phil. Trans., Vol. 197.)

The longest arcs are due to calcium lines H and K. The shorter arcs to the left of H and K are the ultra-violet lines of hydrogen. They are not present in the Fraunhofer spectrum.

A similar behaviour is shown by Hydrogen. Hngeoyrd gives four lines in the visible spectrum, the red line $\lambda = 6563$, corresponding to the C-line of Fraunhofer; the green line

$\lambda = 4861$, the F-line of Fraunhofer, the blue line $\lambda = 4340$, *f* of Fraunhofer, the violet line $\lambda = 4101.8$, the *h* of Fraunhofer. These four lines are amongst the strongest in the Fraunhofer spectrum. About 1885, Balmer of Basle showed that the frequency ' ν ' of these lines are represented with great accuracy by the simple formula

$$\nu = \frac{1}{\lambda} = N \left[\frac{1}{2^2} - \frac{1}{m^2} \right], m = 3, 4, 5 \text{ and } 6.$$

$m = 3$ represent the red line, $m = 5$ the green line, etc.

The extreme simplicity of the formula suggests that a deep meaning is hidden in this expression. In fact, in recent years, this formula has proved to be one of the main keys to the problem of atomic structure.

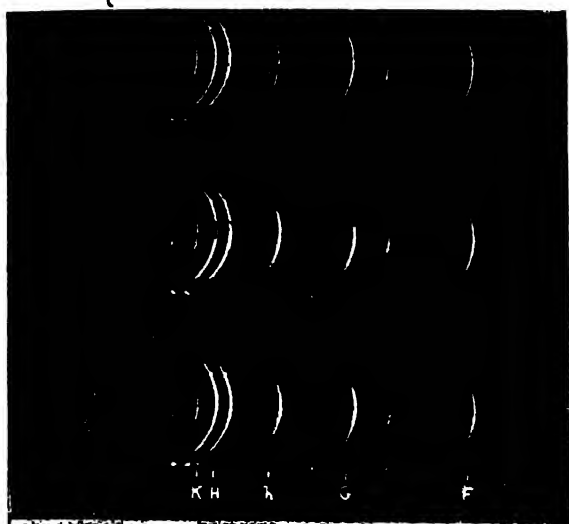
The formula shows that the hydrogen series ought not to stop at H_β (the 4th line of the above group), but ought to extend further in the ultraviolet, giving a large number of lines in serial order and ending at $\lambda = 3645$. The Fraunhofer spectrum shows indeed a line corresponding to $m = 7$, but most careful scrutiny fails to reveal any other lines of the series in the Fraunhofer spectrum. A number of other lines were subsequently discovered in the spectrum of the star Sirius,¹ and in the laboratory, but none in the sun.

This mystery cleared itself in the eclipse expedition of 1898. Evershed found that 29 lines corresponding to the Balmer formula are present in the flash spectrum. Mitchell later on increased the number to 35. But it is not yet clear why only 5 of them are present in the Fraunhofer spectrum.

If the reader looks carefully on the adjoining figure he will find two very big arcs, denoted by the letters H and K. They are by far the longest arcs in the flash, greatly exceeding the

¹ Refer to the upper figure on page 509. The top most spectrum is that of the star Sirius. More than eight lines of hydrogen are shown.

hydrogen arcs in length and intensity. These two arcs correspond to the H and K bands of Fraunhofer, which are the strongest absorption lines in the solar spectrum. It may be mentioned here that from the length of the arc, it is quite easy to deduce the height of the corresponding element in the solar atmosphere. The longer the arc, the greater is the height reached by the element.



Photograph of the Flash Spectrum secured on Jan. 22, 1898, at Vizianag in the Bombay Presidency by the Lockyer Expedition (from Phil. Trans. Vol. 197). The H-K arcs are due to radiant calcium, F, G, L are due to radiant hydrogen.

These considerations show that the lines H and K occur in the highest layers of the sun. To quote exact figures, they reach the height of 14,000 km. while hydrogen reaches the height of 8,000 km. only.

The earlier astronomers, Huggins, Young and others, at first believed that the H,K lines were due to some element lighter than hydrogen, "**some subtle form of hydrogen.**" But laboratory experiments soon dispelled this illusion. It was found that the twin lines are due to Calcium!

Here is a strange enigma, a perfect riddle to astronomers.

Levity of Calcium
in the Solar Atmos-
phere.

If we suppose that gravitation is the only force in the sun, it ought to act 40 times more strongly on a calcium atom than on an H-atom. Hydrogen would reach the highest levels, and then would come the other elements in order of their atomic weight.

But this expectation is apparently most flagrantly violated in the atmosphere of the sun. Then again gravitation is 28 times stronger on the surface of the sun, hence it ought to have practically no atmosphere. A closer scrutiny brings out many other flagrant discrepancies from the physical laws as known on the earth.

Quite a crop of theories were introduced to explain these facts. Many astronomers were of opinion that there is a force of 'levity' in the sun, which largely neutralises the pull due to gravity. This force of levity is sometimes supposed to be due to electrical forces, sometimes to the pressure of light, sometimes to the action of convection currents. But no attempt was ever made to explain why the force of levity should act on calcium alone (and a number of other elements).

Mention ought to be made here of an ingenious theory of Prof. Julius which tries to explain away the whole set of eclipse phenomena—the chromosphere, the flash spectrum, the corona—as mere "optical illusions." The theory explains some of the general features quite well, but breaks down entirely in the treatment of details.

The first step in the elucidation of these problems was taken by Lockyer. He showed that the spectra of an element varies with the stimulus sent through the element. One set of lines come out distinctly under low stimulus (such as the flame and the arc). But if the stimulus be gradually increased these set do not so much gain in intensity; but another set begins to appear, and rapidly gain in intensity. A stage can be reached when the first set is entirely suppressed, and the second set alone remains.

The first set of lines (low stimulus lines) are generally known as arc lines; to the second set (high stimulus lines) Lockyer gave the name 'enhanced lines,' or 'spark lines.'

Lockyer discovered the remarkable fact that the high level chromospheric lines are invariably 'enhanced lines of elements' *viz.*, of Ca, Sr, Ti, Fe, Mn and Sc. The low stimulus group always occur at a lower level. To take one example, the H and K are the enhanced lines of Calcium. The line which is strongest at low temperature ('g' of Fraunhofer, $\lambda = 4227$) is represented by a rather short arc in the chromosphere, corresponding to a level of 4,000-5,000 kilometres. Similar behaviour is shown by the lines of other elements which are strongly represented in the solar spectrum. Their low stimulus lines fail to reach any great heights; the enhanced lines, on the contrary, reach very high levels in the solar atmosphere. From these evidences, Lockyer drew the conclusion that the chromosphere is the seat of much higher stimulus than the photosphere.

Further development of Lockyer's idea cannot be followed without a brief digression on the spectra of stars. With the aid of naked eye, it is possible to distinguish 4 classes of stars, white, yellow, yellow-red, deep-red.

Lockyer's studies
on the Solar stellar
spectra.¹

These stars are in the order of descending temperature, deep-red stars have the lowest temperature, white stars have the highest temperature. Secchi showed that the spectra of stars corroborate the classification based on visual observations. The spectra of the star of a particular colour is almost typical of that class.

Lockyer worked out the transition stages very fully, and showed that the spectra of red and yellow-red stars are practically made up of low stimulus lines. The enhanced lines are only faintly present. But in the spectra of higher classes, the low stimulus lines become fainter, while the enhanced

¹ Refer to the top figure on page 519. The three spectra are respectively those of white, yellow and red stars.

lines begin to gain in intensity. The high temperature stars practically show only 'enhanced lines.'

These facts led Lockyer to a number of hypotheses. He assumed that the spark was equivalent to a high temperature. Led by the belief that white stars represent an earlier stage in the process of evolution, he thought that elements were present there in a more primitive (or **proto**) condition. The enhanced lines are due to the "**protoforms** of the elements." Thus the 'g' line is due to ordinary calcium, while the 'H' and 'K' are due to '**Proto calcium**.'

But the very idea that the atom, the indivisible unit of matter can be in any way further subdivided was regarded as a sort of 'heresy' in those days. In astronomical circles, the distrust with which Lockyer's views were regarded was enhanced by his attempted explanation of the spectra of the solar atmosphere. As we remarked before, the spectrum of the high level chromosphere is practically made up of "enhanced lines"; in other words, the spectrum is the same as that of a star of higher surface temperature. Lockyer therefore believed that the temperature of the chromosphere was higher than that of the disc. In other words, the temperature increases as we go outwards in the sun.

This is a rather startling conclusion and common sense never allows us to accept such a hypothesis. In the earth, to take a concrete example, the surface temperature is something like 300 (Kelvin or Absolute scale), but this decreases at the rate of 5° per kilometre as we go higher up in the atmosphere. This decrease continues for 10 to 12 kms. the temperature falls about 240 K and then it reaches an almost steady value; the temperature being maintained by exchange of radiant energy. There are very good reasons to believe that the same state of affairs holds also in the sun. The surface temperature has been determined to be about 7000° K. This decreases at a very rapid rate, but assumes a rather steady value of 5500° K at the higher levels. This view is apparently

inconsistent with Lockyer's idea. Still, the fact that the chromosphere is the seat of higher stimulus has to be explained.

A theory to explain these facts was given by the present writer about a year and a half ago, which has met with general acceptance. But an account of this theory will be out of place here.

The coronal spectrum. The spectrum of the corona is one of the most puzzling riddles of solar physics. The spectrum shows a number of lines which are not coincident with any Fraunhofer or flash line, or with the line of any known element. The best known line is $\lambda=5303$, which was in early times confused with a line of iron having the wave length of $\lambda=5316$. This line and its associate line are ascribed to a hypothetical element called "**coronium**." But "**coronium**" has not yet made its appearance on the earth.

In the light of modern theories of atomic structure, it does not seem probable that "**coronium**" will turn out to be a newcomer in Mendelieff's family of elements, but will prove to be, like Lockyer's Protocalcium or Protovanadium, only a modified form of some known element.

It will be seen that beginning with the memorable eclipse of 1868, most of the important eclipse observations were made in India. The eclipse of Sept. 21, 1922, will however pass south of India. The adjoining fig. shows the track of the eclipse. Beginning from the east coast of Africa, it will sweep across the Indian Ocean. The original plan was to have three eclipse stations, one at the Maldivé Islands, the second at the Christmas Islands, south of Java, the last on the west coast of Australia. The Maldivé project has subsequently been given up. A British party and a joint Dutch

The Coming Total
Solar Eclipse.

and German party will camp at the Christmas Islands. Here the duration will be 3' 40" but the station is not exactly at the centre of the moon's shadow, but fifty miles south of it. The sun will be nearly at the zenith, and there are good prospects of fair weather. The British party is composed of Mr. Spencer Jones,

M. Melotte and observers from the Greenwich observatory, while the Dutch party will be under the leadership of J. G. Voute, Director of Meteorological Survey in the Dutch Indies, Germany will be represented by Freundlich, Kohlschütter, and probably Einstein.



(From an article in the *Nature*, Dec. 29, 1921 by Dr. W. J. S. Lockyer).
Track of the moon's shadow during the coming total solar eclipse, Sept. 21, 1922. The small circles denote the site of the eclipse stations. The Maldive project has been given up.

In Australia, probably both the west and east coasts will be occupied, by an American party under Prof. Campbell of the Lick Observatory, and an English party in which Australia will be represented. Mr. Evershed from India will probably encamp somewhere in the west coast of Australia. Here the duration will be 5' 18" and the sun will be nearly 60° high. The weather prospects are said to be favourable.

A question which is asked in this country—what is the good of all this fuss—may be answered here. The sun is the source of all life on this earth. It controls the weather, the winds, the rainfall, the currents in the ocean. All sources of power and energy are to be traced ultimately to the sun. If the physics of the sun were accurately known, it is only a question of time that meteorological problems, vital to mankind would find their complete solution. Wind, rainfall, changes of weather would be then calculated in advance like the motion of planets. It seems that the attainments of this goal is only a question of time. The journey is long, the goal is not yet in sight, but if the scientific activity of mankind be allowed to continue, probably some day it will be reached.

MEGHNAD SAHA

VENGEANCE IS MINE**BOOK II—CHAPTER V****“WHEN WE FALL OUT WITH THOSE WE LOVE”**

The tropical sun matures quickly our Indian humanity. Human hearts and human heads are fully developed here earlier than in other lands. At the age when the seriousness of life dawns upon our minds, the youth of other lands have hardly left off their toys. When the Western lad is still a playful youngster free from care, we get strength to undertake the heavy responsibilities of life. The atmosphere of the tropics favours early blossoming, early flowering and—early decay. The thoughts and ideals of Jagat and Tanman would have done credit to a grown up person. They had begun to glimpse in their hearts the boundless fascinating treasures of love, they saw unfolding before their eyes the inscrutable secrets of life. Slowly but surely some mysterious power was dragging them along a path—they knew not whither.

The day after the excursion Harilal, Madhavdas and Jagat began to discuss the modern educated young man and Mr. Ramanlal was putting in his opinions and comments about learning in general. Shortly afterwards Tanman arrived and she too came in with her remarks from time to time. The discussion turned upon how the “educated” Indian treats his wife. Just then a servant came in with a message and the two elders went out.

“You educated people are all cowards,” continued Raman in the pride of his own ignorance, “if you cannot teach your own wife, what else are you fit for?”

“But why should we teach?” answered Jagat, “the aim of one’s life is not to be a wife-trainer. We have got to start many a wonderful enterprise, we have got to pour out the best in our lives for the sake of our ideals; so why should we

burden ourselves with this extra work? One could teach a whole village with effort required to educate a dull woman. Why are not parents as anxious to educate their girls as they are to marry them? Do they expect to gain all the advantages without any effort?"

"But why blame parents for marrying them?" Tanman asked with comic seriousness. "Is it not the Joshi Maharaj¹ that brings about our conjugal bliss?" They all burst out laughing at this sally.

"What I want to say is—" began Raman, but a servant came in and said, "Sir, your father wants you." It was a nice chance for Raman to get out of the argument, so he left his remarks unsaid. Tanman took up the argument. "Do you mean to say that if men tried to educate their wives properly they could do nothing great?"

"No, I don't mean that. But an uneducated wife is a dead weight round her husband's neck."

"But to tell you the truth," said Tanman, giving an unexpected twist to the argument, "how could any educated woman like to marry? We had a neighbour in Bombay who daily used to beat his wife. But she, poor dear, was very wise and kept quiet. As if we were created only to bear your blows, eh?" She turned up her delicate nose at this question, but her eyes were dancing with affection and mischief.

"Who said so? And certainly not a girl like you," replied Jagat with a smile.

"But, Kishor, what sort of a wife would *you* like to have?" asked Tanman giving the matter a twist in another direction.

"Very nice indeed? How did *this* question arise? But if I have a wife she should be my comrade and equal in all my efforts, in all my hopes and in all my aspirations."

Tanman pursed up her full lips and whistled thoughtfully.

"But such a wife could not tolerate you for a minute. If she is to be your comrade and equal in everything she

¹ The family astrologer.

could not permit any of these airs. No wise woman could put up with you for a moment; understand!" cried Tanman mischievously.

"Why are you so angry with me to-day?"

"I am not angry. But don't talk of comradeship and equality. Just look at your airs and your pride. Yesterday while coming back you flew into a rage with poor Mani for nothing. If you treated me like this for much a trifle I would not even look at you again."

The servant came in to call them.

"Yes we are coming directly," cried Jagat getting up.—
"Tanman, if I marry the girl I love, the chief aim of my life would be to please her always;"—his voice, his words were vibrating with wondrous emotion.

"Very well, we shall see. But before you find her, just improve that nasty temper of yours," said Tanman and threw her handkerchief rolled up in a ball at Jagat. They communed more with unspoken than with spoken words.

This pair was drifting out—was being carried away—upon the ocean of love. They had no thought of the other shore whither they were bound. They had taken the plunge trusting for the moment the unknown future. They dived and laughed and played in its delightful waves—and the days passed. To their unsophisticated hearts this was the only natural expression for the surging life within. And Harilal had no eyes to see.

* * * * *

The three were sitting down—Jagat, Tanman and Mani. There were not many people there. At their feet were the murmuring waves of the Arabian Sea. The coming disc of the setting sun seemed as if poised motionless for a moment before plunging into the waves—and night. The breeze was softly blowing—it was grateful to the touch as if caressing these two children of nature. The two were talking quietly and Mani was picking up shells.

In their talk much was left unsaid. They thought neither of the future nor of the past. To them it was always the joy of the present—of the gorgeous nature around them, of the union of loving hearts. They used to spend thus hours on the seashore or on the bench in the mango-grove. Sometimes Tanman teased Jagat and quarrelled with him ; and afterwards the sweet moments rushed swiftly by in arranging the terms of peace.

They most often talked of the new world around, the renaissance of their country and of Jagat's high ideals and hopes. Their comradeship was on a higher plane than the ordinary, there was nothing of the earth in it. Such comradeship alone brings forth the highest expression of a man's life.

Jagat was stretched upon the sand. A fisher boy came running closely pursued by another. The first rushed into the oncoming waves and the second also ran after him. In his eagerness to escape, the first boy again rushed out of the water near where Jagat's legs had been stretched and scattered the spray all around. Then he tripped against Jagat's boots and fell headlong upon the sand. The water and the wet sand made a sad mess of Jagat's immaculate trousers; he lost his temper completely. He thrashed the fallen child with his cane. Tanman's blood was up.

"Jagat, what is this ? What are you doing to this child ?"

Jagat was by no means soft-tempered. His blood boiled on the slightest pretext and now he had lost all control.

"What do you mean ! This rascal—" and he again raised the cane.

"Stop it. Are'nt you ashamed of yourself ? You are about four times the size of this child, but that gives you no right to kill him."

Jagat's temper did not cool ; on the contrary at Tanman's words all the pent up rage blazed out. He could not brook any one's authority or interference.

"Who asks your advice ? How does it concern you ?" he cried in rage with his face crimson. Tanman enjoyed very

much seeing Jagat in a rage, she had grown into the habit of teasing him daily.

"Concern me! Yesterday you were a great champion of liberty and equality," cried Tanman superciliously curling her lip—like unto the bow of Kamadeva¹—"and to-day you have nearly killed this poor child."

As one was getting hotter every moment, the other kept cool and with sharp words pierced him to the quick. In a couple of minutes all the pleasure had disappeared & they silently walked back to their cottages. Jagat's rage was still smouldering, Tanman was unhappy at his injustice, at this exhibition of his rage, and at her failure in making peace with him; poor Mani was dumb with astonishment.

"Well, Tanman, why are you so gloomy to-day?"

"Oh, nothing, Gulab-ba,² nothing at all." Gulab-ba, Tanman's step-mother, did not ask any more. But Tanman was more pained at heart than she cared show. Why did she chide Jagat? At first she had hoped that he would give in as usual and make peace, but this had been something quite unexpected. How to make peace again? Will Jagat be placated? When will they two meet again? Tanman felt all the weight of her crushing misfortune. In her innocent, happy, free, young life this was her first grief, her first stroke of ill-fortune. How could she go to him now? Would not Jagat come to her with the peace-offering? She was thinking in this strain when Harilal came home. They had their dinner and prepared to retire. Harilal was very fond of music so a fine singer had been invited from Surat. He was to sing at their evening party the next day. And as the ladies had to get up early to make all the preparations, they retired early.

But how could Tanman sleep? She thought of many things. She could not do without Jagat. But what a vile temper he had? No, no, she herself was wicked. Why did she tease him? If she had not done so they would have parted

¹ The God of Love.

² Ba means "mother."

friends as usual. How much affection had Jagat shown for her, and how had he tried to overcome the defects of his temper in order to please her. She had grown big, but still she was only foolish big baby. What if Jagat refused to be placated? And what if, perchance,—he went away? Merciful God! What would she do then? Tanman's tears flowed fast at the mere thought. "But no," she murmured, "I will go to him the first thing to-morrow morning and will make friends again. Oh, Kishor darling, why are you so hard?"

At last about dawn sleep, or rather a half-dreaming, half-waking state, came to her relief. In all her dreams there was Jagat;—the end of all grief. In one Jagat was drowned, in another she was cast away somewhere, in a third they had quarrelled. At last with daylight she got up, came down and sat on the swing on the verandah. The rising sun somewhat lessened her despair. While she was hesitating whether she should go to him now or later, Gulab-ba called her in for the preparations. With firm set lips and hardened heart she set about preparing for the party.

Neither was Jagat any happier that night. With daylight, however, he also grew less despondent and felt more his wounded self-esteem. Every day Tanman used to tease him and he had to beg for pardon. Why should she not beg of him this once? But again he thought it wiser to forgive and forget and decided to speak to her if she should come to him. An hour passed, two hours passed: he felt on the one hand grief and on the other anger at Tanman's continued absence. Why was she not coming? Had she, he wondered, fallen ill? No, of course not. "She means to have her way and I too shall sit tight. She may come if she wants to." He found no way out of his sore perplexity. It was noon, but still no Tanman. He then wanted to go out to her, but Raman detained him. Each unexpected delay vexed him further.

About two o'clock he saw at a distance Tanman coming to the cottage calling out to Mani. Jagat put on all the airs

of wounded dignity, but he could see that there was no life that day in Tanman's usually radiant face. She came in, called Mani to her and told her something. He and she both wished to speak—even tried to speak ;—but both clung obstinately to their prestige and pride. Gulab-ba sent a servant to fetch Tanman and she went back.

Jagat was very uneasy in the evening. Owing to his want of sleep and his anxiety he has got a headache. He debated within himself whether he should attend the music party or not. Ultimately he decided to go. Tanman was indeed tired of him and would now forget all her old affection. He decided under these circumstances to go to Harilal's place and satisfy himself by gazing at her dear face. Several ladies were sitting there and Tanman was moving about among them, her fine form draped in pure white. From the bamboo screen he could partially see her graceful outline and filled in the details with the help of his memory.

The music had begun, but he could not endure for long seeing others enjoying whilst he was sitting amid the ruins of his hopes. His head ached more, so he quietly got up, went downstairs and resolved to go home. He was so agitated that he would have burst into tears if any one had but accosted him. He came down to the verandah : there was no one there,—outside all was dark. He stood against the railings resting his head upon his hand and gazed out at the distant sea waves. From above came the sound of music ; but it was full of sorrow, the *sarangi* was as it were lamenting. He scarce knew what to do ; he felt that he would die unless he was reconciled to Tanman.

From behind he heard a voice calling as in a dream :

“ Kishor.”

Jagat started, drew himself up and turned round. With pale face and brimming eyes Tanman was standing there. She was trembling. She seemed not Tanman, but the phantom of a dream ;—in the quiet dim light of the stars she seemed like a

nymph of heaven come down. Jagat hardly trusted his senses and stood dumb.

With her arms outstretched and her face full of grief she cried: "Kishor dearest, won't you forgive me?" Her voice was tender and full of grief and tense with suppressed emotions.

Jagat's heart nearly burst. A moment ago he had scarcely felt a pulse-beat but now he felt the blood surging through his veins. Waves of pleasure were rolling up to his aching head. Each nerve responded to the ecstatic joy. He did not know whether he stood upon the earth. He could but articulate with great difficulty—"Tanman, darling!"

This was the moment for Mother Nature herself. Almost unconsciously he stretched out his arms—he felt them stretching out.

The next moment the two full hearts were locked together. They had met and that sweet moment was compensation enough for ages of pain. It was the divine salve for the unspeakable sufferings of last night. They stopped not to consider if what they did was correct and proper. They followed blindly where Nature led them. Where the heart is pure and without sin, obedience rendered to Her commands of love and trust is also pure and without sin.

Tanman's eyes were full of tears but her face was lit up with loving smiles

Jagat asked with a smile: "Are not you going upstairs to hear the music?"

"Go upstairs! Why, is there no music down here?" asked Tanman with mock gravity.

The strains of the divine *Vina* of Creation were resounding through their hearts, what use had they for earthly music?

(To be continued)

KANAIYALAL M. MUNSHI

IN AND AROUND JUNAGADH (BOMBAY)



Fig. 1. The main peak of the mountain.

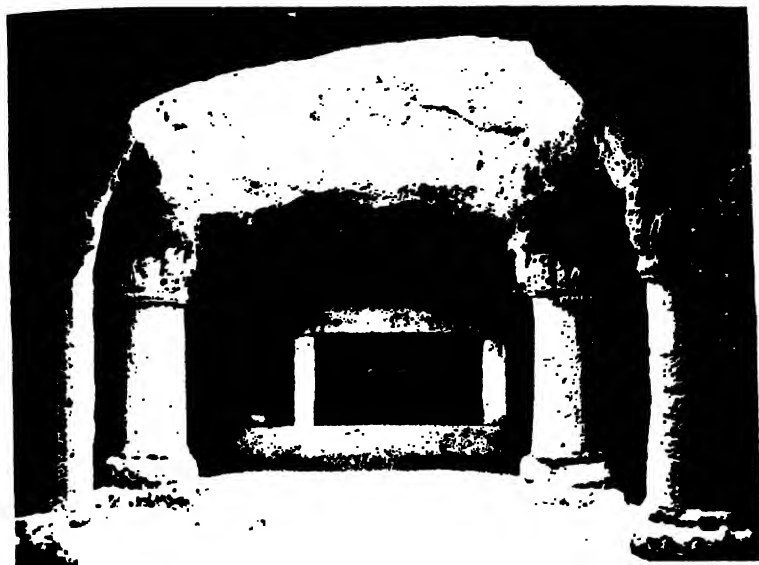




Guru Datatreya Peak on Mount Girnar, Junagadh



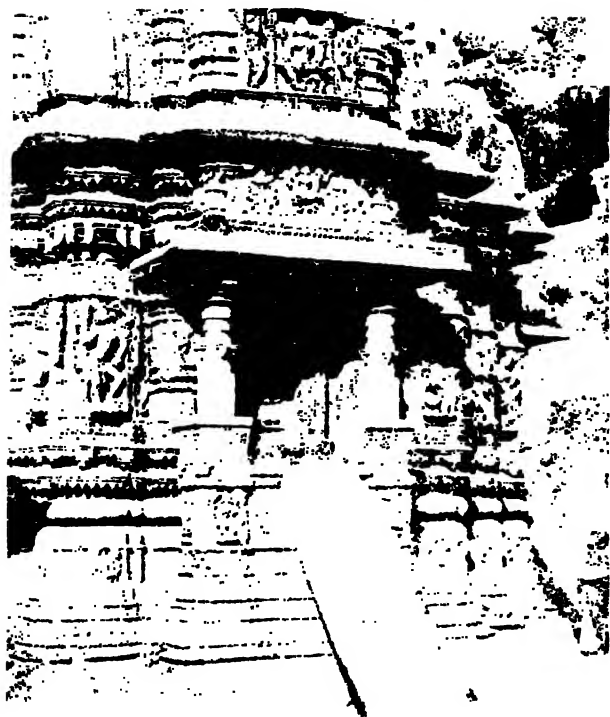
Entrance Archway to Uparkot, Junagadh



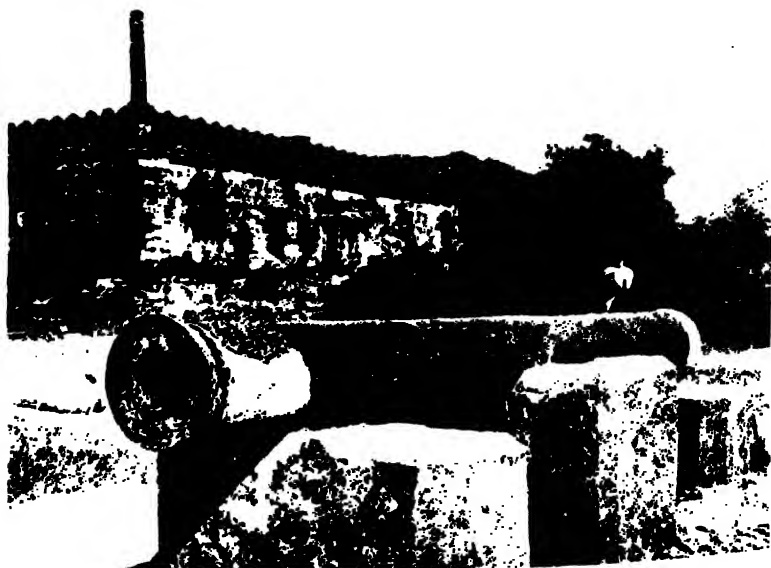
Khapra Kotia Caves on ————, Junag.



Asoka Inscription Rock, Junagadh



THE MONUMENT



THE HASHISH SMOKER ¹

At midnight when the planets stream
Across the purple desert skies,
I barter for a hempen dream,
The promised joys of Paradise.
A fairer Eden lures me through
The smoke-wreaths of a Hashish Bowl,
And there—I laughing turn to view
That lost Nirvana of my soul.

The poppy spells till dawn unfold
Strange forms that charm—sweet forms that please :
Fresh sprung from beauty's rarest mould—
Earth holds no beauty rare as these.
Ah, nightly, as the fumes upcurl
Bright eyes upon my dreaming shine :
There, is many a slim brown girl,
Whose tinted lips are raised to mine.

I reckon not if in Blessed Glades
A Houri's face be fair to see ;
But seek the smiles of other maids
To those a Faith once pledged to me,
And by a stream, whose waves reflect
Many a moon and shooting star,
Through scented groves all flower bedecked
I pass nor care—what gods there are.

Where palace lamps burn dim and low,
The carved gates lie open wide ;
I pace beneath their jewelled glow
A fairy princess by my side—

¹ Reprinted from "Business" May, 1920. Published by the Tata Publicity Co., Ltd.

And drink the wine she pours for me
Nor ever wake to count the cost—
For these I pledged eternity,
Nor losing heaven deemed it lost.

Asleep to ill, from eve till morn
I rule a king—in lands divine ;
A sinner men by daylight scorn—
Nor fear the Fate men say is mine.
For when Life's Moon is on the wane
And Death has claimed his wonted toll,
I'll dream the old, sweet dreams again
In Hades with—my Hashish Bowl.

MIRIAM KHUNDKAR

From Far and Near

Oxford and Cambridge.

Mr. Fisher's University Bill, introduced in mail week in the House of Commons, providing for the formation of bodies to be known as "The University of Oxford Commissioners" and "the University of Cambridge Commissioners," respectively, is the outcome of the activities of the Royal Commission that enquired recently into the applications made by the two Universities for financial assistance from the State. The Commissions are not to form permanent standing bodies, and it is proposed that their activities should terminate at the latest by the end of 1926. This will be appreciated by all who desire the preservation of the autonomy of the Universities. The Commissioners will be entrusted with the application of the proposed State grant, and the whole life of the Universities and of the Colleges will come under their review. They are vested with wide powers for this purpose, and the only notable limitation imposed is that no statute can be made for altering a trust, unless 50 years have passed since the date on which the instrument creating the trust came into operation. Lord Chelmsford, it is interesting to see, will be one of the Oxford Commissioners. The Cambridge Commission will have the power to consider the question of admission of women to the University, it being one of the recommendations of the Cambridge Committee of the Royal Commission that women should be admitted to equal membership with men.—*New India.*

Royal College of Art.

The distribution of diplomas at the Royal College of Art gave an opportunity to the President of the Board of Education to escape for a moment from the lowly plains of Parliamentary controversy to the elevated regions of art. Mr. Fisher's description of the College as a great central art school which attracted scholars from all parts of the Empire was a true one, for Professor Rothenstein, the Principal, mentioned that he had under his care students from South Africa, Egypt, India and Ceylon, and, further, that the College was sending out three men to New Zealand to take direction of the art education in that country.

Mr. Fisher, in the course of his address, reminded the students that the College was primarily intended for the development of industrial art and design. He asked them to remember the great importance of art as applied to industry. It was as easy to make a beautiful thing as an ugly thing. That was one of the great opportunities before the students. The earlier advantages Great Britain had in industry and commerce were passing away, and we would have to depend more and more on science to maintain our position. A great responsibility rested on the College to produce and on the captains of industry to find opportunities for the best artistic ability in the country.—*Education.*

Lord Haldane on Adult Education.

Viscount Haldane, in his presidential address to the British Institute of Adult Education at the University of London Club on Saturday, expressed astonishment at the enormous interest the public was taking in adult education. It was perfectly plain that the new democracy, which was supposed to be inert, was not inert at all, if they got at it in the right way—and that was the way of ideas. Just as the democracy responded magnificently in 1914, when it was called to deliver the country, so to-day it was awakening to a new consciousness, a consciousness that for those who were coming it was right that there should be better opportunities in the way of knowledge than existed in the past. They should go to the university as the source of their inspiration. If they could only succeed in bringing the universities outside their walls so that they might be able to furnish a sufficiency of teachers to accomplish their great mission, he, for one, would have no fear for the future.—*Education.*

India and Germany.

No feature of the Indian trade returns of the last year or two has been of greater interest than the progress made toward restoration of German commerce with this country.

The advance was slow for some time after the Armistice. In the year 1919-20 India sent goods to Germany to the value of Rs. 139 lakhs, receiving shipments therefrom of only Rs. 4 lakhs. In the following year the corresponding figures were Rs. 882 lakhs and Rs. 175 lakhs. These figures represent about one-third of those of the pre-war year 1913-14, when the exports from India were Rs. 2,612 lakhs and the imports Rs. 1,257 lakhs. The percentage share of Germany in the total trade of India was 9.05 in the pre-war year and 2.3 in the last fiscal year.

Further progress has been made in this fiscal year. In its first half both the imports and the exports were more than double the value of those of the same period of 1920. At the same rate of progress for the second half of the year Germany will have reached the position of recovering, in terms of rupee value, nearly half the pre-war trade.—*The Mysore Economic Journal.*

Indian Students and Canadian Universities.

The question of admission of students from this country into the Universities of Canada was raised by authorities in India. Two letters have been received on the subject recently one from the principal of the University of McGill and the other from the President of the University of Toronto. The former letter runs as below:—

'I beg to thank you for your letter of June 21st. Let me say in reply that McGill University would be very glad to number in its student-body some students from India. In fact I have discussed with more than one Indian representative the best means of having Indian students educated here. One Indian, Rustom Rustomjee, who lectured to the students last winter, was quite sure that he could induce some Indian princes to grant a few scholarships. At the present time we have not sufficient funds to justify us offering special inducements to Indian students to take their

[University courses here, but should they come we would be very glad indeed to see them and welcome them. Major Chisholm is himself a graduate of McGill. He is also an old officer of mine and I knew him very well when he served so gallantly in the 3rd Battalion. In writing to him please remember me most kindly to him and say that we would appreciate any efforts of his which would result in having the great nation of India represented at the National University of McGill.]

The second letter is as follows :—

'The Canadian Universities are not averse to receiving Indian students. In fact at a meeting of the Universities held in Winnipeg last week a committee was appointed to see what steps we should take with regard to making the way easier for the admission of Indian and Chinese students. Dean Adams of McGill is the convener of this committee. The fault does not lie at the door of the Universities at all. The Universities have for years been struggling to have the Government remove the barriers that have discriminated so seriously against Chinese students. The attitude of Indian students has, I am sure, been occasioned by what took place in British Columbia. You may be confident that the Universities will always be glad to co-operate in the way of having students from foreign parts come to us. Not only is it of value to the Universities themselves but will be a national service in regard to trade.'—*The Leader*.

Cannibalism is no unknown thing.

Extract from a letter written by a member of the "Save the Children Fund" from Saratov, dated the 11th May, 1922.

The famine is a definite, solid, concrete, horrible fact, and is beyond any description. Cannibalism also is no unknown thing here. Children are not allowed out after dusk, and no mother, with any regard for the safety of her children, allows those under twelve to go any distance from the house. The number of starving professors and really intelligent people here is frightful. But we can do very little for these. We only feed, or take on the feeding of children whom we can continue to feed while our funds last. There would be no sense in just taking a bunch of children, or giving indiscriminate feasts for a week or two, and then letting them get back into their starving condition. So we accept slowly, and maintain a regular list. The Russians in authority are * * of the first water, but I hope that the Genoa Conference will result in trade being established between Russia and the Foreign Powers. This job is supposed to finish by the end of August, but I hear on very good authority that we shall continue on into the next year. For the sake of the poor people here, absolutely stupid hunger, I hope it does. The sights are awful and the objects one sees dragging themselves along the streets, are something indescribable. The food substitutes are nauseating and I don't know how any human organisation could possibly retain the filth that these starving wretches run down their throats. The weather is fine, and I sincerely trust that the harvest—the little that has been sown—will be reaped and eaten by the people and not robbed from them, as it was in the preceding years of Bolshevik rule.....

Reviews

Some Aspects of the Economic Consequences of the War for India :

Thesis approved for the Degree of Doctor of Philosophy in the University of London, by S. G. Panandikar, M. A. (Bom.), Ph.D. (Econ. London). D. B. Taraporevala Sons & Co., Bombay. Pp. 451. Price Rs. 6.

The work under review is a critical study of the effects of the War on the trade, industry, public finance, currency, exchange and the banking system of India. It is for the most part based on recent official publications and in a work of this kind the modest task of the reviewer is to write an appreciation. One of the outstanding features of the book is that where possible the author institutes international comparisons. Thus the figures indicating the amount of the bank deposits in the principal countries of the world, the amount of note circulation of the world's great banks, the net imports of gold in the principal countries of the world during the War are not only interesting in themselves but in some cases are valuable as correctives of opinions hitherto held by writers on Economics. Take for instance the contention repeated *ad nauseum* that India is a sink for the precious metals of the civilised world. It is conveniently forgotten in this connection that India has 15 times the area and 7 times the population of the British Isles and that India contains 19 p.c. of the total population of the world (p. 341). The author shows that during the years 1890-1910 United Kingdom, the U.S.A., Germany, France and Italy absorbed amongst them £773 millions worth of gold out of the world's production of gold amounting to £1233 millions, while India with a population of not much less than the total population of these countries took only £126 millions. Nor can it be pleaded in defence of the huge absorption of gold by the western countries that the metal was required for currency purposes, for it is pointed out that only 40 p.c. of this amount was so utilised and the balance went for "other purposes." What these other purposes were we do not know but presumably they were not very different from those in India. A second feature of the book is that an attempt has been made to look at things from the unprejudiced point of view of the scientific enquirer. The pros and cons of a question have been studied with a fairness and impartiality befitting an academician and no hasty generalisations have been indulged in.

The book is divided into eleven chapters of which four are devoted to trade and industry, four to public finance, three to banking and currency. The last chapter summarises India's gains and losses resulting from the War. The popular belief that India enjoyed a brief spell of trade prosperity during the War is refuted. It is shown that calculated at the price level of 1913-14 the value of imports into India in 1918-19 amounted to £46.9 millions as compared with £127.5 millions in 1913-14. On a similar calculation the exports in 1918-19 amounted to £113.5 millions as compared with £166.5 in 1913-14. A study of the distribution of India's import and export trade leads the author to conclude that it is not to the interest of India to adopt a policy of Imperial Preference and that "it will merely benefit

some other parts of the British Empire especially the United Kingdom at the expense of India " (p. 92).

While the trade of India received a set-back during the War far different was the case with many of her industries. The War stimulated her industries by shutting out the imports from enemy countries. Even the imports from England diminished considerably as she was engaged in the task of manufacturing shot and shell and other war necessities. The activities of the Indian Munitions Board still further curtailed the imports from England. The Board refused to give certificates of priority for the importation from England of those goods which could be produced in India or imported from elsewhere. The author shows by a reference to the jute, iron and steel and leather industries how these were stimulated by the artificial restrictions resulting from the War.

But the chapters most interesting to the ordinary citizen and the Indian politician are those relating to public finance. The revenues of the Government of India in 1919-20 were greater than those of 1913-14 by more than 45 p.c. Our author says they were "almost double those in 1913-14." But this is hardly accurate. While the total expenditure increased by a little more than 45 p.c., the military expenditure increased during the same period nearly 80 p.c. It is also interesting to note that during 1913-14 to 1918-19 there was an increase in the net expenditure on salaries and expenses of civil departments from £6.1 million to £21.6 millions while during the same period the expenditure on education, sanitation and medical relief increased from £4.4 millions to £5.2 millions.

The figures relating to the increase of note circulation in India during the War disclose results equally interesting from another point of view. We constantly hear it said that India is suffering from the malady of inflated currency. But very few of us realise the nature and extent of this inflation. The active note circulation of India increased from Rs. 50 crores on the 31st March, 1914 to Rs. 154 crores on the 31st March, 1920. Simultaneously with this increase in the amount of note issue, the fiduciary portion of the paper currency reserve went on increasing. By a series of amendments to the Paper Currency Act the limit of investment was raised from Rs. 14 crores to Rs. 126 crores. It was by this means of currency inflation that India Government financed a part of the War expenditure. The Home Government printed Treasury Bills, handed them over to the Secretary of State for India and against these as securities the Government here issued currency notes—a veritable case of "pig on pork."

The author rightly points out that it was this defective currency policy which was partially responsible for the rise of Indian exchange. The Government scrambled for silver at the most inopportune time when the world's production of silver fell far short of the demand "in order to give some metallic cover to the note issue." The defective gold policy pursued by the Secretary of State for India was also in some measure responsible for the phenomenal rise of exchange that took place towards the latter part of 1919. The continuance of the prohibition of the import of gold into India after the armistice and especially after the middle of 1919 when the U.S.A. became a free market for gold made it easier for the silver interests "to take full advantage of the situation." The author recommends the adoption of a gold standard and a gold currency as the solution of India's currency and exchange difficulties.

The book can be recommended to students who require within a short compass a critical, historical and comparative account of the various economic questions of India during the War.

J. P. N.

Annual Progress Report of the Archæological Survey of India: Central Circle, for 1920-21.

The report is a brief account of the activities of the central circle of the Archæological Survey of India during 1920-21. It contains 53 pages, 6 photographic plates and a drawing illustrating the excavations of the main site at Nālandā. Paṇḍit Hirananda Śāstri is to be congratulated on the important epigraphical discovery he has made of the Nālandā copper plate of Devapāladeva, dated in the year 38. Though it has a religious character, the document is also of considerable political importance. The object of the charter is to record the grant of some villages in the Districts of Rājagriha and Gayā in the *Śrīnagarabhukti* for the comforts of monks and the upkeep of a monastery at Nālandā. The plate tells us that King Devapāladeva granted the villages at the request of Śrī Balaputra-deva King of *Surarnadriṇa* made through his *Dutaka* Balavarman. The Paṇḍit is probably right in his identification of *Surarnadriṇa* with Sumatra. For besides the fact that the king of *Surarnadriṇa* is also called the ruler of *Jarabhūmī* (p. 5) which is apparently Java, we must take note also of the fact that portions of lower Burma and Malay Peninsula were known in ancient times as *Surarnabhūmī*, the *Surarnabhūmī* of the Pāli Literature and the *Golden Chersonese* of the classical authors. It is quite likely that while the coastal region was known as *Surarnabhūmī* the large island of Sumatra which lay close by was known as the *Surarnadriṇa*. Another important discovery is an image of Tārā lying at Itkhori in the Hazaribagh District of Bihār with the name of Mahendrapāla incised on its pedestal. The Paṇḍit does not appear to be right, when he identifies the Mahendrapāla with 'a king of that name, who belonged to the dynasty of Pāla kings of Bengal.' It is true that a king Mahendrapāla some of whose inscriptions have been found in the Gayā district was considered by certain scholars as one of the Pālas of Bengal. But no Pāla king bearing the name Mahendrapāla has yet been discovered in any of the genealogical tables contained in the Pāla inscriptions not even in the Manahali grant of Madanapāla who is now generally accepted as the last independent Pāla king of Bengal. On the contrary we find a Gurjara Pratihāra king bearing that name and ruling over an empire stretching from the Arabian Sea to the frontiers of the Pāla kingdom. The same king is also found granting land in ancient Srāvastī in U. P. (*Ind. Ant.*, Vol. XV, pp. 306-07). Under these circumstances we think Mr. R. D. Banerjee was perfectly right in identifying the Mahendrapāla of the Gayā inscriptions with the Gurjara Pratihāra king of that name. (M. A. S. B., Vol. V, pp. 63-64) and if this is so then the Mahendrapāla of the Tārā image of Itkhori is surely the son of the Gurjara King Bhoja. The image No. 2099 contained in the 5th photographic plate is marked

unidentified. The Paṇḍit suggests that it may represent 'Gaṅgā standing on Makara.' But he adds that 'if the vehicle can stand for a conventional elephant she may represent Indrāṇī though that will be too bold a conjecture...' In our opinion the Vākana has certainly much more similarity to an elephant than to a Makara though it must be admitted that its tail is not quite elephant like. But no Makara can have such legs. On pages 5 and 38 the Paṇḍit translates the word *Dūtaka* as 'ambassador.' In his translation of *Kautilya's Arthaśāstra* Mr. R. Shama Sastry renders the word as 'envoy.' But it is better to avoid those words which have now-a-days acquired more or less a technical sense. Modern political parlances and retain the original Sanskrit literature. On pages 35 and 39 the Paṇḍit uses Devnāgarī script in writing 'Sanskrit'. On pages 37 and 38 he has Roman characters without any explanation. Again on page 38 the word *Indrāṇī* is written in Italic while *Gaṅgā* is not so rendered. We would like to urge the necessity of precise expressions in such learned reports and the adoption of uniform system in writing Sanskrit words and passages. If the printing is so expensive why not use Devanāgarī characters only?

BRITISH LIBRARY

India Arisen: By P. T. L. Vaswani. P. 114. Ganes & Co., Madras, 1922.

The author is an idealist, and "idealism is not a man's business." An idealist is seldom practical, he may not be logical even. Prof. Vaswani has attempted, in this little book, to explain the philosophy of non-co-operation. To those who want cogent reasoning and inexorable logic, the book under review is disappointing. But those who prefer an impassioned appeal to the heart will find it excellent and charming. The book is well printed and nicely got up.

S.

A Soul's Posy: By Zero (Panini Office, Allahabad) Price 8 Annas.

The Panini Press have issued a very attractive little booklet of a soul's meditations upon the things that really matter - things pertaining to the Higher Life. It is the eternal cry of the soul crying out for the Beloved. The theme is ever new and as ancient as "the Creator's first plan of the Universe." The Upanishad Seers have sung of It in India and in Persia the Sufis have sung of the Beloved. This Posy reminds us of both and has occasionally very quaint imagery drawn from 20th century science. One little bit where the ten layers of the retina are spoken of will, we hope, delight an oculist of sophisticated bent. There are a lot of apt illustrations from physics, zoology and physiology. The mixing up of Science and Sufism is quaint but strikes out a new and bolder line. The message is the same as of old, only clothed in modern language as in the sentence "The inner 'Wireless' depends on the inner ether tuning." The book is worth reading slowly and being meditated upon.

BOOKWORM

A Short History of the Order of Saint John of Jerusalem—by E. M. Tennyson (The Society of S. S. Peter and Paul, London).

A very interesting and readable account of a great humanitarian movement which shed a beam of light across the otherwise lurid clouds that envelop the history of mediæval Europe. We are carried in succession from Jerusalem to Cyprus and Rhodes and then to Malta. The author has strong likes and dislikes and makes no disguise of his feelings against the Moslem, the Hun (both ancient and modern) and against anything connected with the Revolution. This rather mars an otherwise exceedingly readable history. He is unusually severe upon Baron von Hompesch the last Grand Master of Malta. There are other opinions about him and even if he sinned in handing over Malta to Napoleon he atoned for it by his death as a pauper. But the one thing the author cannot forgive in Hompesch is his German birth. Boys scouts should find this book of added interest when preparing for their ambulance badge. *Cœur de Lion*, *La Valette* and host of other true knights pass before us one after the other—a series of inspiring figures, true Scouts all.

BOOKWORM

The Drink and Drug Evil in India.—By Badrul Hassan (Ganes & Co., Madras), pp. 161. Price Rs. 2.

A formidable champion of what may be called the Pussyfoot-Gandhi campaign in India has taken the field with this little contribution to the vexed problem of "dry" reform. Mr. Hassan here presents himself to the reader as at once a historian, though in miniature, of the drink evil and an enthusiastic advocate of temperance. The historical sketch which passes in review the entire period from the age of the Vedas to the age of the Moguls forms, however, only a quarter of a work, the bulk of which is a vigorous and sustained denunciation of the successive excise systems of the Indian Government from the advent of the East India Company to the present day. If now, statements like "Muslim influence helped rather than retarded the habit of drinking" and others in the chapter headed "Under Muslim Rule" be taken as the measure of the writer's candour, open-mindedness and impartiality, the subsequent criticism of the Government's excise policy should obtain a potent hearing and provide much food for serious thought and unbiassed reflection. Apparently irrefutable blue-book statistics and statements are much in evidence in the author's dialectics, and the whole work impresses one as an honest and independent endeavour to look facts boldly in the face.

The opium problem has its due share of the writer's enthusiasm, and the depreciation of the traffic with China and the ever-increasing consumption in India places Mr. Hassan in the company of no less a person than Sir John N. Jordan, who, in a recent article in the "Daily Mail," has expressed his belief that it is incumbent on the League of Nations to terminate the world-wide evil of the opium traffic.

Neatly bound, adequately indexed, clearly, forcibly written and, on the whole, carefully printed as it is, this volume should recommend itself to all interested in the drink and drug problem.

P. D.

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THE CALCUTTA REVIEW

OCTOBER, 1922

THE EXPRESSIVENESS OF INDIAN ART

I

INDIAN ART. ITS SIGNIFICANCE IN THE WORLD¹

All things created by Nature, all human creations are only images, parables, ideas, reflexes of that incomprehensible beauty, which seems to pass by in the sudden vision of an inspired moment, leaving behind her smile, the beating of her wings, the bliss of her vision, and the ever-insatiable ever-unfulfilled longing for herself as the unchanging gift to the Creative Spirit. All art being a parable of that one, ultimate beauty, is incomparable, for its standard does not belong to any special manifestation—it is the life itself of that unfathomable beauty, and she pours it out lavishly on those who are prepared, who are open to it like the ploughed field, and who know how to seize it.

There is only one God, but numberless are his forms. How eager he is to meet man; he chooses the garment of which he is sure that it will be familiar to man so that he will realize him in closest communion and know him as

¹ Lecture delivered at the Calcutta University on the 27th July, 1922, by Miss Stella Kramrich, Ph.D. (Vienna).

his own self. There is only one Art, but numberless are its forms. The Infinite touches a different string in every human heart, and each resounds in a different way although the depth of its sound is vibrating with the same emotion.

It is a strange and complex phenomenon, that a work of art representing something we may or may not know, created by somebody whose name is forgotten, conceived hundreds and thousands of years ago, speaks a language and expresses an inner experience near to us through inborn understanding of our nature although the combination and suggestiveness of the forms may be unaccustomed to us. But in spite of the ultimate reality of art being one and the same it necessarily has to assume in each special case that particular form, that is to say, it has to run through that channel of inner experience which is most adequate, and satisfies the creator to the greatest extent. The goal is the same but the ways are many, and we appreciate all the ways because all of us realize the goal.

Life means something different to every individual. In this respect every civilization represents one individual, whose features are distinctly shaped, and who reacts upon the outer world in a way which is psychologically coherent.

Striving after his own happiness—and such is the equilibrium of mind,—every individual creates combinations of conceptions or of forms which give to him the feeling of complete satisfaction, of peace and unity.

Art is creation. The artist, the creator uses his own life, the aspect of his surroundings, and the amount of his knowledge as his materials. By moving from his inner self to the outer world, he follows a rhythm unknowingly yet unavoidably, and it is this rhythm which organizes the work of art and makes it into what it is. Every individual has his own rhythm; it is of vital importance, for it does not only determine the way of his moving about between concreteness and imagination, it is not only the beating of

his individual heart, but in a sympathetic way, it makes the objects which it approaches, move and live in the same strain. Their relative distortion—or what appears to be distortion—is the inner rhythm of creation objectified.

It is paradoxical and true that the universal significance of any art is attached to its most individualistic, most singularly peculiar features. For they possess all the immediateness of the first vision, that is to say, of that vision which always remains fresh because it is alive in the special disposition of the artist. Mankind in its creative attitude towards the world with all its bewildering charm, its peaceful harmony, with all its suggestiveness of an over-world, makes art the relevant, spontaneous manifestation of the life of the soul.

In this way, every work of art is an æsthetic revelation and psychological confession.

Art does not know of progress. The cave-man attained unrivalled perfection with his earth-colour paintings on the rough walls of rocks and caves, and the artistic merit of a negro sculpture, for instance, is equal to any of the best Buddhist, Gothic, or Post-Impressionist work of art. But again we have to face a paradox, for although the ultimate truth of all art is one, and although no art of any civilization is superior to that of any other, still there are distinctions. It is like the rungs of the ladder. The lowest, the highest, the middle one, all are rungs of the ladder, and none can be missed.

We are accustomed to consider the physical age of people, we even speak of the age of nations, but we do not sufficiently realize that the psychical life of mankind in its various manifestations is an expression of the age of soul, and determines its reaction with regard to the surroundings. Some civilizations have primitive souls, the experience of others is mature, while others approach the world with self-consciousness and refinement.

The primitive soul faced with disentangled reality gets lost in the chaos of its own inner experience. This maze of

life is oppressive and exuberant, and the soul is in it, and wherever it turns life stands around it, and it cannot find the way out, and it goes astray in unknown wilderness which creeps nearer and nearer towards it, and takes possession of it, and it sinks down in amazement, and becomes crowned, and buried by the excited wilderness of imagination. This experience found artistic realization in the north of Europe, more than a thousand years ago, it accompanies the whole of Islamic art from Persia to Spain, and Indian art is penetrated by it from the earliest monuments known to us throughout its existence.

A carving from a small wooden church in Sweden makes animals disappear in the endless curvature of their own limbs. These stretch and bend like surging waves and glide over their own existence with caress, and rush away in terror and get entangled and free themselves in a harmonious play of their own vital energy. Their fear is smoothed by a melody which sings through the pang: it organizes their distorted and broken features, it restores them to life in communion with lines which have no name but which are endowed with significance, and spread over and get engrossed in a manifoldness which belongs to them and does not belong to them, and carries them away and restores them to entirety, unaware, though sure of its movement. They cover the surface by an impenetrable thicket of forms, lines, movement and suggestiveness. Nothing seems to exist besides their intricate reality.

In Islamic art the symphony of a fearsome, crowded and intermixed life is calmed by a more rational temperament into a pattern of regular geometrical design. Muslim imagination always is restrained by a calculating intellect, which carefully places square next to square, and fills each of them with squares, or circles or other geometrical devices until nothing is left without design, and not the smallest part remains vacant, and even the holes which have to be

cut out to make the pattern distinct (which is carved in the wood)—even these holes are not empty but their darkness accompanies the irresistible logic of squares, it plays between fanciful arabesques, itself arabesque and pattern of its own, so that light and darkness mingle in one plan, where the positive and negative become absorbed in frantic imagination.

This dread of emptiness, this turbulent joy of heaping and crowding together infinite forms reflects and satisfies the mind of man, who feels himself entangled in the cosmos, who does not know of its secret but who takes part in its life, and whose only consciousness and distance is the deep fear of the seemingly insoluble connection, of which the power is too great to be resisted.

Indian art created this gruesome joy of existence in innumerable compositions and uncounted buildings. It found complete expression for that sort of chaotic existence and of breathless whirl. In a relief from *Amaravati* intoxicated dance revolves in circles growing more and more narrow—round the offering bowl, which surges out of the crowd in its centre, yet is fettered to and clasped by the ceaseless energy of a never-tired movement. All these joyous men, similar to squares and arabesques, and intimately connected with the elongated scroll of fantastically dismembered and distorted animals, which populate the imagination of Northern people, all these figures are merely an intricate pattern, a densely woven net which is thrown in great anguish over the vast abyss of the unknown. And the ground of the relief seconds the madness of its figures.

To thrust away the gap, to be absorbed in life, manifest through forms is one of the leading principles of Indian art. The creative impulse, in fact, is nowhere else so strong as when forms are made to grow out of forms, when in uninterrupted continuity dome is overpowered by dome, architecture is dissolved in figures, statics is forgotten and in an

exuberant growth spires shoot up, towers, balconies, statues, and reliefs, when no wall exist any longer for they are replaced by pillars, figures, and the display of light and shade. Every Indian temple conquers death by life, keeps away the unformed and empty from its sacred walls, and revels in the overflow of artistic creativeness, nourished by a primeval emotion of soul. The dread of emptiness expressed in positive terms by the exuberant joy of a limitless life, is the urgent force of Indian art.

Primitiveness is basis as well as fate of Northern and Islamic art. They never could get over it and died away in the sterility of a pattern which became unsuitable for the expression of new contents. Indian art, however, escaped the danger of becoming sterile and abstract. It never stopped, and the plasticity of its forms always proved a ready shape for a new experience and altered appreciation of life.

It is a widespread error to classify art which merely shows lines, surfaces, or colours in correspondence amongst themselves and without any allusion to concrete objects as plants, men, and the like as abstract art, while artistic forms, suggestive of things seen or imagined are called representation. This view originated from the Egypto-Greek art-tradition of Europe, which was revived in the Renaissance. Humanism thought man the one and important object of art ; but as man does not exist by himself but is surrounded by sky and earth, landscape or town with all their parts and details, those too deserved to become objects for representation. And at the end photography triumphed, giving absolutely objective representation to all things of reality, and in this manner, rescued art, which was on its way to forget its source, the inner experience of man and its endeavour, that is expression through creative form.

“ Abstract means removed from nature, but as art occupies a level different from that of nature, abstraction loses its significance and the reality of art depends on the standard

inherent in art itself. The geometric ornamentation of Islamic art is as real as any portrait by Rembrandt, for both are rooted in an ineffable yet fundamental experience of life. The problem, therefore, is not to distinguish between abstract and realistic art, the question we must answer is—How is it possible that man realizes his creative self in so various ways, which are absolutely different from the various languages spoken? For these convey thoughts in a manner incomprehensible to those who are unacquainted with the special language, whilst works of art in unlimited generosity reveal their soul to all who do not forget that they too have souls.

The distinction between abstract art and representation lies in man's consciousness of life. To those agitated by uncontrolled forces and feelings, life appears a texture where threads are shooting to and fro, carrying with them fragments of reminiscences which get entangled in jungles through which the soul has to find its path. And like a child frightened by the fearful nearness of a lonesome night starts singing a song, and it clasps the terror of the unknown, so primitive art conquers the unknown by a melody which never seems to end, for it gives its flow to the forces which threatened it, and they calm down like waves after the storm, or it makes them spell-bound by its will so that they crystallize into the regular patterns of squares, circles, and arabesques.

Indian art brought forth by this primeval fear of life, of which the reverse is superabundance of vitality, reacts with melody and measure, with abstract rhythm, but also with unbounded freedom of what is called representation, that is to say, it introduces the figures of men, animals, plants and inanimate objects into the flowing river of rhythmic invention.

It surpasses the stage of primitiveness and reaches the attitude of the naïve, unsophisticated soul, which finds itself at home in the world, which has discovered itself as something that holds its own position though it be included in the universe. Still the charm of the unknown, of the "abstract"

retains its significance. The symbolism of early Buddhist art, parallel to that of early Christian art, where for the bodily presence of Buddha as well as of Christ, symbols like the circle of the wheel or the cross are substituted, preserves the primeval fear of the creative mind with regard to the shape of things.

It must be understood that primitiveness in one sense does not coincide with one or the other early stage of human history. For the cave-man, known as primitive man, masters life, at least in its manifestation of animal life—as his sure possession; he is the conqueror who stands in safe distance from his victim, and realizes its existence as something fundamentally detached from his own person. The evolution of soul, of psychical life, of which art is the creative expression does not depend on the degree of civilization. Even the term evolution cannot be applied, for do we not see at such a late age as that of present western civilization, art finding its true expression in the “primitiveness” of shapeless abstract compositions of mere lines, patches, and colours? “Primitive” with regard to creative expression is the name for a type of soul, which might be connected with certain types of civilization, either as spontaneous expression or as reaction: this question, however, transgresses the theory of art. All that can be said, is that there are distinct types of human creativeness.¹ The reason why we call one of these types “primitive” will be justified by its relationship with the other types of artistic behaviour. Indian art in its elementary strength, in its untiring invention of crowded forms, in its

¹ The “primitive” relief from *Amaravati*, the dense crowd round the bowl is at least 3 centuries later than our *Bharut* sculpture. But the historical succession has little to do with psychical maturity. The mentality of *Amaravati* and also of *Sanchi*, which again dates from 50 to 100 years later than *Bharut* is undoubtedly in certain respects less mature than that of *Bharut*, which is one of the earliest Indian monuments known to us. No reason for this wilful ascension, neither the overhauling result of the intermingling of races, where the artists came from, nor the various local and racial art traditions can solely be made responsible for this reverse order of history.

endless rhythm, in its severe, abstract pattern of all the compositions participates in the primitive type of the world's art.

The art of a creative unit, whether it be a single individual, or an entire civilization, has in all of its productions an inner continuity. This is the life-movement of every individual aspect of art, its most intimate expression, its unique character. The elements of visual art, on the other hand, are limited in number; line, surface and cube, colour and light and shade represent the essential elements which are at the disposal of creation. The selection and relation into which these elements are placed in order to express the inner trend of imagination, constitute the peculiarity of every art.

Indian art never stops, and it cannot forget either. Its expansion is immense for it carries on the stock of its earlier inventions, and amalgamates them with the presence of any time. Its tradition is an undying life-stock, and so it is no wonder that the dread of emptiness is compatible with the serene peace of animated figures.

In the reliefs which adorn the railing of the *Stupa* from *Bharhut*, equal peace embraces the figures of men and animal, of fruit and jewel, of flower and town. Whatever be the action, the representation maintains an undisturbed serenity which is not greater in any part or member. All of them join in stabilised harmony, the hymn of life which is sung by the heavy and patient movement of an untiring, all-pervading lotus-stalk. They assemble and render homage to their own unity which makes them greater than if they were separated. They have in fact, no power to stand for themselves. They cling to each other like tendrils, who in spite of their completeness as plants, need the support of a solid stem. The stem of this art is the design, into which all figures are included. It carries them firmly and they surrender willingly. The design has done away with the perplexing and ceaseless succession and penetration of an infinite

multitude of forms. The forest of frantic imagination has been cleared, order has come into peaceful land.

Borobodur, 1000 years later than *Bharhut*, developed in straight line the leading principle of *Bharhut* art, of that naïve contemplative mood which surrenders to live out of generous gratitude. The explosion-like vehemence of primitive conception has mitigated its sway, the single figures have grown in size and decreased in number. They share the freedom of a clear atmosphere, amply and harmoniously distributed amongst them. This stage of artistic vision, highly developed in Greece, and henceforth labelled as classic art, is common to the whole of European art, except in its Byzantine phase. It is equally widely spread in Eastern Asia, where the whole of Chinese art, except the *Sung* age, and the whole of Japanese art, except the Buddhist tradition are of one and the same level. This art, classic in its spontaneousness, takes its impression from life, and transform the particular impression into a world of its own which obeys laws dictated by the contact of individual and reality. Whilst primitive art is of one and the same turbulent texture in all its manifestations, the mature, the naïve art creates a new texture where some definite theme is the warp and some experience is the weft. In these periods the unknown forces have become spell-bound, and retired far below the threshold of consciousness. Imagination is set free from the anguish, and tries its first steps which are going to be decisive with all the surety of a wonder child.

But although Indian art naturally possesses types which belong to the whole of art, it amalgamates the various types in unique manner. Greek art, for instance, which subordinates heroic figures is an artistic reasonableness displaying the legend and grandeur of the actors in a way which shall give permanence to the scene, as that the realistic freedom of the figures is subjugated by a strictly observed symmetry and by rigorous limits. But the

classic naïveté of Indian art is fundamentally different. In the relief of the *Stupa* from *Borobudur*, the rigidity of a symmetrical arrangement is unknown. The Buddha animated by the subtle grace of his entire nature has entered the scene. Devoted to his own inner mission he stands amidst the glory of jubilating spirits, who surround him like agitated waves of water, full of the rhythm of the flowing wave, and a similar movement is poured out over the Buddha's benign attitude. Although he is the central figure he does not occupy the centre of composition, but he allows the flying movement of the spirits, the wind-waves which pass through the top of flowering trees, the waves of devotion which pass through the hearts of the humble worshippers,—he allows all of them to communicate and to unfold themselves, and his standing, which means coming, giving, and receiving, accepts the blessings of nature, and the prayer of man, as if it were a shower of happiness, gently running through all his limbs.

Although the composition results from a special theme, and not from a state of mind only,—and although it has the greatness of well-displayed masses resting on a level ground which has no other function than to display the composition, the composition itself has preserved that indomitable necessity which makes it one continuous whole of an all-pervasive movement; it resists, carried on by its strength, the fetter of symmetry, and creates a free rhythm unmindful of laws and rules, and merely expressing itself.

Such is the inheritance of primitiveness to the classic spontaneousness of Indian art. The autonomous inspiration of the artist reposes on the primeval experience, that between all things and within all of them the same creative force is at work. In this way, Indian Art attains its rapturous curvature which is blended with the solemn choiceness of a classic art.

Indian art never stops. Whilst in other civilizations the classic balance of art is followed by a reaction of the primeval

instincts which are not satisfied by the polished and measured balance, a type of art which is called *Baroque*, and distort the equilibrium by their indomitable sway, this type is excluded from India, for there the whole of experience remains intact and becomes sublimated yet remains one and the same. Because the life-stock of Indian art never dries up, it has one coherent tradition, which receives every fresh impulse with the flexibility of a youthful mind, and amalgamates philosophic conceptions with the vitality of inspiration. Therefore, it never runs the danger of becoming allegoric, but it remains original creation with the help of its undying tradition, which has the eternal life of the spirit.

The conception of the Buddha image, one of the most significant realizations of a sublimated mind makes unswerving symmetry the artistic attitude of the sculpture while *mudrās* and *āsanas* characterize the bodily posture of the *Tathāgata*. And yet this symmetry, rigid and commanding in its nature is transformed and suggests a psychical state unknown to any other civilization. Egypt and the Byzantine empire alike made symmetry the standard formula for transcendental contents. The statue of an Egyptian God or king, — and there is no difference between them, — is not only symmetrical in its structure, but also in its expression. Pitiless parallelism gives to him the aspect of a superhuman being, unmoved and persistent in its unapproachability. The Byzantine composition, ruled by a similar spirit of stern transcendentalism makes angels the bodiless walls which guard the deathlike silence of the immovable God. But the symmetry to which Indian art subjects its Gods has nothing of transcendentalism. There it is the subtlest vibration of an accomplished state of spiritual existence and still it preserves a faint perfume of human life. The modelling of the body has all the warmth of life and the well-trained breath of the *Yogi* keeps him straight and perfectly at rest. His whole epidermis is sensitive to life.

It silently embalms the conqueror, and he gives way to it and lets it take its course. His mind dwells in the Infinite, and his hands are redeemed from all effort, and from all energy.

Architecture, the most comprehensive kind of art, maintains in all its forms, throughout the whole of Indian history the unity kept alive by primeval superabundance, which is restrained by the spontaneousness of classic measure, and reaches perfection by surrendering vitality and the equilibrium of life to the predominating idea of an artistic reality, the laws of which correspond to that of the universe.

The Indian temple, an exuberant growth of seemingly haphazard numberless forms, never loses control over its extravagant wealth. Their organic structure is neither derived from any example seen in nature, nor does it merely do justice to æsthetic consideration, but it visualises the cosmic force which creates innumerable forms, and these are one whole, and without the least of them, the universal harmony would lack completeness.

This completeness is a unique achievement of Indian art. Through it, it is distinguished from all other civilizations, for those give expression to the one or to the other feeling of life in various ages, sharply distinct from one another. In India, however, all ages of soul are alive in each of its artistic manifestations. Every Indian work of art is primitive and sublimated, naïve and refined at the same time. And this wide expansion of creative emotion concentrated in every one of its productions, bestows on it a spiritual vitality, unfamiliar to the rest of the world. With this creative wealth at hand the Indian artist expresses his feeling of life:—Man awakens into a new sphere of existence, which does not have any space for God, for it has become saturated with him. Nature, too, is transformed and has no beginning and no end, for bush and line and hill and man, all are co-ordinate, and fundamentally there is no difference between them.

Through the expression art gives to man's face, the physiognomy of soul itself, shows its mystery naked and unashamed. The face of Egypt, determined and commanding, though not free from terror, glares with wide-open eyes into the other world.

Europe creates the self-determined and self-conscious attitude which results from an untiring energy. No weakness is tolerated by these sharp and severe features. They know their aim and they do not want to know of anything else.

The Indian physiognomy has got over terror and all fear. It does not want nor does it need to strive for, or to maintain its aim, for long ago it has achieved it, and now is at peace, and need not search the other world for distant happiness, and need not struggle and try to conquer some small square of reality which it might call its own.

The Egyptian statue immortalized the life of an infallible king, stern and remote from human emotion and therefore like one of the Gods. The European face, great in its purely human strength and weakness disdains all pretentions.

And the Indian head knows and forgives and faintly smiles the eternal smile of the deep sea which is not stirred by storms. Such are the monuments different civilizations set themselves. The artistic visualisation is truer than all written documents can be, and redeems the consciousness of every age from misunderstanding. But whilst the face of Indian humanity expresses its God-likeness through features which have become the expressive gesture of their own refined emotions, the relationship of man and world links both closely together. It is a simple natural world, where big birds fly their own way, where scented, starlike flowers blossom at their time, where hill and house and bush and meadow are the serene frame for man. And if you look closer you forget the hills, houses, clouds and man, and become aware that they are merely various forms and various shapes for the one reality which surges up in all of them and

bends and surrounds them, according to its will. Fundamentally there is no distinction between all of them, all are equal parts of the artistic vision as well as of nature ; fundamentally there was no difference either between man and God—this being the artistic message of the Buddha head.

Indian art integrates the types of human creativeness otherwise only realized apart from one another. Through this amalgamation of various spiritual types it gets the intensity of expression which unites primitiveness and sublimation, imagination and reality, spirit and matter in one pliable material, ready whenever intuition wishes to make use of it.

II

NATURE AND CREATIVENESS¹

Nature is man's creation. The mountain of course, the river and the sea do not need man for their existence. But nature is more than and different from its constituents. Its meaning to us is that of origin and union and because we have left the one behind us and have not reached the other, it has become something apart from us. So for the time being, which will last as long as man, for it came into existence with him and is unthinkable without him,—for the time being the faculty of art was given to man. It is the meeting place of the human soul and that of nature and wherever they come into contact, form is created. Form redeems man from his separation. Through it object and individual become fused and what results is more than either of them.

Nature in all aspects has an alluring charm. Charm implies danger and man succumbs to it, by trying to copy some aspect of nature or the other. But as long as the original exists, the copy is of no value, and as we are not likely to witness the withdrawal of nature from this world, naturalistic art in respect to creation is superfluous.

The closest contact of man and nature is visualised through landscape painting. Neither poetry nor music know of a similar form. What does "landscape" mean? It gives a cutting from some sight of nature and with the sight the mood of him, who contemplated it and with the mood the way he got impressed by it. "Landscape" is a state of soul, objectified with the help of some sight of nature. We are so accustomed to see ourselves in landscape paintings and to find in them the sanction of questions we do not ask, for fear to get an answer, that we scarcely can believe, that landscape as

¹ Lecture delivered at the Calcutta University on the 31st July, 1922, by Miss Stella Kramrich, Ph.D. (Vienna).

an independent art is a very late form of expression and is reached by very few civilisations only. The great painters of the Sung-age in China, the sensitive sculptors of late Romano-Hellenistic reliefs, the artists of Europe from the seventeenth century onwards are the only artistic units who express themselves through landscape. Landscape, namely, the union of water and earth, of sky and mountain, evening or spring, presupposes distance, concrete distance as well as that of soul. For there are not only trees in a forest one next to the other and there is not only some blue sky extended over plain and mountains. But what makes tree and river and mountain and sky so significantly coherent, is the space between and around them. connection and separation, limit and oneness. It is, however, the distance of our self from nature and our longing towards it which gives to landscape a spiritual perspective.

A Chinese painting for instance, places a mighty tree old in age and experience, on the slope of a barren rock, which emerges from and rushes down into the unknown and the tree bows before the vastness of mysterious space, which does not lead anywhere, but directly borders on the infinite, and its branches drop into that peaceful and vibrating emptiness that pours itself into the heart of man, whose smallness has become effaced by his own emotion which touches the yonder shore and the boat points to the same direction.

Cezanne, the representant of modern European painting realizes nature in its cosmic order, where the hill is the rule of the house and the tree that of the sky and the coloured surface that of the picture and their hovering that of his soul. While the Chinese loses himself in nature the modern European finds his equilibrium projected as far as nature reaches.

This comprehensive view on landscape originally is unknown to Indian art. Whether it be Chinese or modern European landscape, their significance, results from contact,

from the contact of atmosphere and the tree's movement and man's gesture in the Chinese painting and from the fusion of the texture of the material and the play of light and shade which are subordinate to the firm logic of intuition in Cezanne's work.

The Indian artist, on the other hand, does not see the intercourse of the various forms of nature. His interest is absorbed by each of them to an equal extent. When, for instance, in the representation of the Kurunga Miga Jataka from Bharhut, hunter and antelope, woodpecker and tree and tortoise populate a forest which does not exist for our eye, but is suggested to our imagination, no similarity to any kind of landscape possibly can be discovered. Yet the relation to nature, created in such a relief is not less intimate than that of the former visualisations. In what manner?

The single figures appear as isolated individuals. We do not see where they stand, nor from where they come and grow. For the flat ground of the relief does away with everything that is not directly connected with the main figures of the relief. Yet it would be wrong to see those detached figures as isolated, on the contrary, they are as closely connected with one another and with the whole as trees, animals and men of any landscape can be. But in order to realise this connection, we have to forget all memory pictures, which menace our appreciation and we have to forget the manner accustomed to us of looking at things. We must not seek for things which possibly will not be there, but our eye dwells on those forms and relations, on those signs and solutions which indicate and represent the truly Indian conception.

There is a childlike unreality about those small trees with big leaves and stems. There is an unsophisticated and voluptuous pleasure in the curvature of body and neck and movement of the animal, there is a quaint simplicity in the slanting position of toylike men who have the intensely

expressive gestures of marionettes. Surely they are not surrounded by nature but how could they be surrounded as they are nature themselves. Such is the landscape of Indian art; it does not describe or suggest the aspect of nature, both of which imply the notion of an alienated and regained nature. But the Indian mind abides in nature, and it creates as nature does. For do we not see flowers growing on the slope of the hill in the same graceful irregularity with the same gentle bend, the artist has given to his creatures?

The Indian artist in creating does not observe nature, but he realizes it. He himself belongs to nature and it is working through him. This creative attitude stands very near to Spinoza's terminology of *natura naturata* and *natura naturans* where created and creative are qualities of one substance. The work of the Indian artist has the growing life which earth bestows on its creatures.

One type of composition, as significant for Indian plastic as the *latturam asi* for the Indian mind, is represented by the group of woman and tree. It occurs in the earliest phase of Indian art, it accompanies its entire existence with the sweetness of the *setar* which keeps tune and time of the song.

The legend tells that the *Asoka* tree begins to blossom when touched by the left foot of a woman. Art makes them bloom into union. Her arms and the stem are one; one life of youth pulsates through both of them; it is the life of earth, the life of nature. Therefore composition to the Indian artist does not mean an abstract scheme, as it is the case with parallelism in Egyptian art, with the triangle in the European Renaissance and with the diagonal line in the Baroque. It is an effortless movement which flows through all the forms and overflows from the one to the next, from the woman to the tree and from movement to cube.

In the art of the whole world—except in India—devices and patterns will be found which have the function of embellishment and decoration only and which have no deeper

connection with the compositions themselves. The numberless posts and walls, beams and slabs of Indian monuments covered or adorned with the undulating stalk of heavy lotus flowers, are of unique significance. They are the purest creative forms which landscape achieves in India. No suggestion of atmosphere is made there, for they carry their own atmosphere with them, that mood of exuberant growth which never stops and passes from bud to flower, and from stalks and leaves to birds. That wave of the lotus stalk how strangely unnatural it is in a superficial sense, how deeply true to a cognisance of nature as everlasting in its continuous flow from death to life, from winter to summer from bud to fruit. Indian art knows of no "landscape" for not the aspect of nature has fascination for Indian creativeness but the working of nature itself. Indian art, therefore, expresses the force immanent in nature, it does not render the likeness of its forms. And in this way every single form of art expresses the whole of nature. But although all forms of Indian art are deeply significant, they never are symbolic. Symbolism, on the contrary, the moment it enters Indian art—it comes from the region of thought, where it belongs to the family of parable and metaphors—it is transformed into a vessel of nature. Tricula's are so nearly related to fish and several symbols grouped together form some new species of fantastic plants. Examples of this early Indian imagination are to be seen in Mathura and Sanchi.

Creativeness and nature have entered unique relationship in Indian art. Art has become the continuation and sublimation of nature through the medium of the creative mind. This process necessarily is accompanied by a further development of the forms of nature. The distortions of Indian art are caused by that peculiar growth.

In what way are the elements of the visible world stimulating to and adapted by the creative impulse? The representation of the Jetavana Jataka from Bharhut shows

the grove the merchant Anāthapiṇḍika purchases from prince Jeta in order to build a monastery for the Buddha. The trees have been cut, only three are left on the border, bullocks and cart which brought the money are having rest and servants are busy covering the ground of the grove with square golden coins, this being the price paid for the grove. Temples already have been built, a sacred tree also has been surrounded by a railing and pious crowds of worshippers. Anāthapiṇḍika appears twice—with this strange occurrence we have to deal later on—at the bottom he watches the purchase, and in the middle he is engaged in the ceremony of consecration. No historic report would be more concise. Nothing is shown which has not its necessary place in the story. And the way how things are shown is of still greater simplicity. Precise outlines give distinction to the tree, its formula consists in one line for the stem and a triangular scheme for the top and man is almost as simple to represent as the tree. Just this childlike simplicity of representation, however, proves an enormous achievement of visual power and concentration. The hand of the artist chisels the absolutely necessary lines and only these with unswerving surety. Nothing can distract him and so he conveys the most precise information of the object he depicts. This clear simplification, far more "difficult" and "advanced" than the most exhaustive description, is appropriate to the artist's aim of giving a clear idea of the visible world, which without his purifying abstraction would remain in the dumb lap of nature. This extreme simplification also proves an economic principle for the creative imagination, for it prevents it from getting absorbed by details and makes it the living source of every form. The one aim of Indian art with regard to nature, is therefore to represent its forms with accuracy. Having attained this goal, creative imagination has free field of work and dives from surface to secret. Being creation it proceeds in the channels supplied by nature.

Every organism in nature is constructed in such a way that the life-energies can circulate throughout the whole body. The life of nature, *i.e.*, physical life, consists in the unbroken and unirritated circulation of the life-juice whether it is the blood of animal and man or the sap of plants. In order to resist and to get on in life, joints, muscles and bones had to be formed, otherwise the organism would break down. Western art during relatively short phases, six centuries of Greek and Hellenistic art and five centuries from the beginning of the Renaissance to the twentieth century, exclusively paid attention to those features of resisting an aggressive life, as bones and muscles are. Indian art, on the other hand, directed its energies towards the other part of organic life, *i.e.*, towards the circulation of the life-juice. The result is obvious. Greek and Post-Renaissance art equally delight in pointing out the muscular energy, the splendidly constructed physique of man, or in an analogous way of every organism depicted. European mannerism, and the greatest artists, Michel Angelo, Titian and Rubens are not free from it, delights in an ostentatious display of exaggeratedly developed muscles, which are clearly marked in all their anatomic details. Indian art, on the other hand, makes disappear muscles and bones for the sake of an uninterrupted smoothness of all limbs through which the life energy may circulate without hindrance. The mannerism of Indian art lies in those languid creeper-like hands, which have almost become standing formulae. The cognisance of life as movement, everflowing, and uninterrupted is formed by Indian art and is compared by naive similes. Shoulder and arm together, for instance, are compared to head and trunk of the elephant, the leg to the stem of a banana put upset down, the fingers are like beans and the face sometimes has the outline of a *betel*-leaf. These ancient comparisons made Dr. Abanindranath Tagore write his Hindu "Anatomy." Anatomy to the Indian artist means the clear expression of

what he feels to be the life-force of nature. It differs naturally from medical anatomy which as science is one and the same all over the world, while art as pure expression varies with the individual who expresses himself. Besides the anatomic deformations of all Western works of art are as deadly as those of their Indian brothers and the beautiful Galatea if she was a true work of art must have died shortly after she exchanged her existence of a statue with that of a young woman for the sake of her lover and creator, the sculptor Pygmalion.

From this creative apprehension of the life of nature, Indian art without making any special effort, finds the genuine form for the most abstract and sublimated conception. The supernatural state of the Buddha confesses through the form, art gives to it, that it is nothing but the purest and ultimately true form of nature itself. Ceaseless life flows from head to arms, from one arm to the next, from body to legs; though the whole statue rests in silent concentration, life takes its course and gives to the highest form of the human mind adequate shape.

How far this conception of nature determines the organism of the picture, that is to say the coherent artistic expression has to be considered later on. For the present it suffices to point out that the artistic means by which the flowing stream of life is visualized are found in the peculiarly Indian plastic representations.

Sculpture, we say, is plastic art. Plastic is an adjective derived from the same root as plasticity. Plasticity, therefore, must have been the outstanding feature of sculpture, when it induced people to call it by that name. In the meantime, however, the original meaning of the word became forgotten and any sculpture however so stagnant and abrupt its forms may be, is called plastic. Indian art restores to plastic its original meaning. Take any sculpture in the round, a figure of Ganesha for instance. At the first moment

it seems as if some tough liquid would boil in bubbles and those bubbles mirror the vision of Ganesha. Still it is a carving in stone. Through a plastic conception the stone has become pervaded by life. It does not resemble any living form, but it has got a life of its own; which never stops and communicates its flow to each single form and makes them swell but also sharply defined and it is thrust further by its own energy to the next bubble and so forth until the whole mass of the stone has been transformed by the fervour of creation from a raw-material into a work of art. No part of the sculpture, no single point of its surface can be looked at independently, for the one is so intimately connected with the next as the various sections of the course of a river. Every material becomes flexible in the hand of the Indian artist. Painting too is a "plastic" art in India. The frescoes from Ajanta are as far removed from a merely two-dimensional surface-decoration as from an illusion of the depth of reality. They are plastic in such a way that every limb, every rock and every wall seem full in their roundness and mass. The modelling of a group of girls makes them grow out of the artist's imagination like superabundant flowers blooming forth from one root. The edgeless plasticity of their limbs allows life to take its calm and uninterrupted course.

Plastic, therefore, is the creative form of Indian "naturalism." With regard to India the meaning of naturalism becomes altered. The word is very much abused, in Europe as well as in India. To the European bourgeois naturalism means such a spectacle which will give pleasure to him without any effort made on his side. To the Indian bourgeois it has a similar meaning, but the value he attaches to it, is still greater, on account of the example given by Europe. To the European artist and intellectual on the other hand naturalism is identical with creative incapacity, while the naturalism of the Indian artist stands beyond the views mentioned. The appreciation and suggestiveness of nature, naturally changes

with surroundings and traditions. The Chinese naturalism to a European eye appears as an idealistic abstraction, whilst European naturalism strikes the Chinese as utmost ugliness. It is, however, the special feature of Indian naturalism not to depict the form of nature but to create as nature does.

This peculiar relationship of creativeness and nature results in an unrivalled rendering of animals and plants. With regard to the human figure it sacrifices the individual physiognomy to the characteristics of the type and achieves in portrait-painting a greatness of pure humanity which does not allow man to become a caricature of God's intention; caricature-drawings, in fact, are very rare in the whole of Indian art. The uncriticising earnestness of the Indian mind does not observe weakness. It carries out the command of nature and places the type over the individual and all types are of equal significance. The elephant, the most accomplished animal of Indian art, is given all the heaviness, roundness and goodness, which that loveable beast possesses; should ever the species die out, the monument set by the representations of Indian art, will make it immortal. None of its movements, none of its curves escaped the artist, and so vitally does he feel with this animal, that in its innumerable representations in sculptured friezes around many Indian temples where several thousands of them are assembled round the walls of one temple, mechanical repetition is unknown, for everyone is given a slight modulation of the elephant trot, so cherished by the Indian mind. The elephants at Kanarak embody the substance of elephantness in their smooth plastic.

The figure of man on the other hand represents a type in the same way as deer or the bodhi tree and all of them are co-ordinated in the composition, for all of them are creatures of nature. This feeling remains alive in the portraiture of later centuries. Rajput portraits confess their Indianness by a flow of the outline which is bent into personal likeness. In this respect they widely differ from Moghul portraiture, which gives the

individual portrait with objective exactitude. But it does not render that something inexpressible through words, that makes the genuine Indian portrait a form of life itself while it flows through some special human features.

Obeying to the life of nature and not copying its appearance Indian art creates form. Its artistic logic is as coherent as the life of nature which it follows and the result to which it necessarily leads must be seen in the images with many arms, many limbs and many heads. Human bodies have multiple limbs in art, because they do not have them in nature and because art can proceed and proceeds in the direction indicated by nature, where nature has to stop. Nature does not produce gods. They are brought forth by human imagination. Nature however supplies the elements which help imagination to construct and to believe in God.

In his mythical stage of spirituality man perceived the supernatural as a combination of forms of organic life, disparate in nature. The Egyptian and Assyrian Gods mixed bodies of lion and man, bird and man, bird and quadruped and the like, Vishnus—Varaha-avataṛ and that of Nuraṣingha—belong to the mythical and combining imagination of humanity. Fundamentally different, however, is the multiplicity of limbs, a unique invention of India.

Supernatural beings throughout the whole world are conceived with wings. They generally spring off from the shoulders and suggest that celestial lightness associated with aerial creatures. In Indian art, however, except in post-Asokan sculpture and Moghul paintings, we do not meet with winged human or animal forms. Garuḁa representations of course stand apart, for Garuḁa, originally conceived as bird, later on assumes a human body. He is we may say a bird in human personification. The Indian artistic imagination disregards wings and creates many arms, growing out of the shoulders—and later on of the elbows also,—which belong to the Gods. The imaginative emotion which

realized the wings and the many arms is certainly one and the same, although the significance of its various manifestations differs widely. For wings attached to man and quadrupeds belong to an imagination, satisfied by addition and combination, while an imagination of an organic and synthetic order is required for the pictorial representation of multiple arms. Both conceptions, however, realise the sensation of psychical elevation seated somewhere between the shoulders. The wing-imagination works more or less mechanically, the imagination, on the other hand, which produces the multiple arms, works organically. Each arm and each hand is not only equally possible in its connection with the body, but through their variety the manifold spiritual energies acting in the god, in his peaceful mind and in his motionless or agitated body, become apparent. Each arm and each hand has a different gesture, a different individual expression, yet all of them are one outburst of divine energy.

This is the way how the Indian artist renders god-likeness. He is so engrossed in the life of nature that through his hand it gets the chance of producing a new possibility of organic form; organic, however, no longer with regard to physical life, but organic as a spiritual embodiment. He visualises God, no longer restricted by the purpose of types, but freed by his imagination, so that life may circulate unbound and unrestricted through the multiple limbs of the Gods, who live their own purposeless existence.

The multiple arms, however, are soon followed by multiple legs, the multiple limbs by multiple heads and multiple bodies through which imagination runs in a vicious circle; for it cannot go further and has to come back from where it started and it restores to nature the simple figure of man with two arms and two legs only.

Nature sometimes lets imagination loose but calls it back when it has achieved what lies within the scope of both of them. Whatever the contents of Indian imagination are, nature

always lies at their root and they have to travel along the roads prepared by her. She gives the suggestion and the artist carries it out. He follows as much her advice as that of his intuition. How else could rock temple and rock monastery have come into existence. They tell their own story, how when the mind became tired of a distracted life, and wished to return to its own depth, how the disciples of Buddha left the world and found themselves, surrounded by nature in all her wealth while they were living in the austere simplicity of some hole or cave nature herself had prepared for them in one of her rocks. And how those monks when no natural holes were left unoccupied started cutting out of the rock small cells and as their number went on increasing continuously, how they grouped their cells and built a monastery, cut it right into the flesh of nature, so that the first organised residence of spiritual man rivals the first dwelling place of the savage who has not yet founded human life apart from nature. And in this way India gives back to nature what she received from her and both are enriched by the surrender of human experience which lies between the savage who against his will is fettered to her and the spiritual who does away with the fetters of society and willingly seeks her communion and shelter. And how, later on, the austere simplicity of the first who sought nature was redeemed from the self-imposed restraint and by the following generations of brethren, and nature herself, through the creation of man became immortal when her rocks were transformed into columns of which every single part suggested some form of nature and big caves were dug out and their walls covered by a miraculous vegetation, of which God and man and animal and the forest and house and legend formed the fantastic pattern.

And again as in the case of the images with many limbs the human element had to go its own way and the Rathas in Mamallapur and the cave temple in Ellora are the token of

man's struggle for luxury. The Kailasa has none of the mysteries of art-nature but represents the luxurious temple of a rich community who could indulge in the extravagance of having it hewn out of the rock.

The eternal antagonism and attraction of civilisation and nature finds its creative interpretation in the history of the Indian cave temple and cave monastery.

It is the fulfilment of its inmost longing that the Indian soul needs and seeks the contact with nature. It gives spiritual satisfaction but sometimes also an emotional one, though this indirectly might lead to the same restful communion of mind as the former. The emotional communion is visualised in a late phase only of Indian art, in the various paintings which have *Ragas* and *Raginis* for their theme. The union with nature is attained by the music-yoga and music or nature herself bodily present in the *Ragamalas*. These paintings generally are of most complex origin whilst as works of art they are of childlike simplicity. They do not only visualise a state of soul but also the season of the year and the time of the day which are objectifications, reflexes and incitements at the same time of that particular mood. And besides they are the secret relationship of both, for the one is the beloved and the other the lover, calling and pining for each other or redeemed from all longing by their union. One of the most significant pictorial types of all the *Ragamalas* is *Ragini Tori*, she—who as some old lines describe her—"is the beloved of *Malkosh* with golden complexion; her hair is like dark clouds and the face like the full moon, and her eyes like those of the deer. The ten corners of the globe are brightened by the beauty of her form. Hearing her song all birds and beasts are shedding tears. The deer are listening to her song intensely and unconsciously they are dancing in front of her. These paintings, late as they are, represent landscape in the sense familiar to us. But at that time, China as well as Europe, had directly

or *vid* Persia exercised their influence on India. The use, however, made of the landscape is purely Indian, though it is a more complex and less direct form than that created in earlier epochs. Nature there has become an actor who displays his inner life through the alluring charm of its personification as young man or young woman or both together and through the haunting sweetness of her melody. The insoluble connection however of figure and landscape—how empty every *Ragini* picture would look without the figure of the *Ragini* and how rich it appears through her presence—the insoluble connection of soul and landscape is the purely Indian merit of these paintings.

Indian art represents the creative continuation of nature, or the return to her and their creative union. Art thus is as natural as nature and nature as artistic as art with regard to the Indian soul, which realises that the cruel form of Narasinha is installed on mountain-tops, in caves and in forests.

III

MYTH AND FORM¹

Myth is an expression of the fulness of life. The underground fars, hopes and extravagancies of inner experience surge up and show their monstrous heads, their heroic deeds and their God-like autocracy. Whatever the origins of myth are, whether physical, meteorological, liturgic, ethic, historic or allegoric, India never ceased to create myth. Different from Judaism and Christianity, myth and religion were never divided and the bitter fight of the established religion and the luxuriant growth of myths was never more than an incident. There are myths which reveal the cosmos reflected in imaginative emotion and others which glorify the mission and vocation of man and his regained cosmic existence. Legend and myth and not the laws and prohibitions imposed by ten commands are the background of the spiritual consciousness of India. Laws are rigid but myths grow in freedom. The Mosaic law prevented art and the Indian myth gave to it the greatness of a limitless horizon, populated by ever-changing, never-tired imagination.

Myth is the subject-matter of Indian art, with other words: to express the fulness of life is the subject-matter of Indian art with other words: who does not experience myth as the only reality will never create an adequate work of art, but merely an illustration. But what does illustration and creative expression mean with regard to art.

An illustration accompanies a text. It visualises some episode with the vivid impressiveness of lines and colours. It serves the text as a sensual foot-note and has apart from it no more independence than duly belong to a foot-note. The aim of the best illustration points towards the text, it is coherent with the words and not coherent in itself.

¹ Lecture delivered at the Calcutta University on the 2nd August by Miss Stella Kramirsch, Ph. D. (Vienna).

A statue, relief or painting on the other hand may have some story, some event, some myth for their subject. And yet they will not be in the service of story, event or myth. Subject-matter is the sound basis of art, yet to be sure—story or myth have their subject-matter just as well as the work of art, which represents that story or myth. But a newspaper report of some tragedy which happened yesterday is pure subject-matter and has no element of art and an illustration stands in similar relationship to the story which it illustrates. The newspaper reporter registers the event,—he cannot afford to create the form of his inner experience with regard to that event. Besides this would not be wanted. Similarly not much more is wanted from an illustration than to register the events of the story by visual means. The aim of illustration is realistic, it leads the verbal abstraction back to an imagined actual reality and it is from this point of view that to the imaginative reader illustrations so often appear disturbing and superfluous.

The work of art on the other hand which has some myth, or legend, or whatever it be, for its subject-matter, makes use of the suggestions already formed by words; but in order to get to their taste and flavour it has to absorb the story. It must be fit for that process of absorption that is to say, the creative emotion of the artist is the receptacle into which literary imagination is poured out. The chemistry of intuition however luckily has no formula. The subject-matter undergoes complete reformation, before it emerges as work of art. Literary imagination, therefore, prepares the material for the work of art; the artist however has to melt and to transform it from the unity of concepts to one unique conception. In this way the artist creates the myth, in a different way but by the same faculty of the human mind which expressed itself in poetical terms.

Not the events, but the significance of the events which constitute myth or story is rendered by the correspondence of

visual means and no longer by the logic of poetical diction.

Myths live by oral tradition. Mostly they are recorded when they no longer exist as living reality in the human heart. Art, however, is a version contemporary with the original emotion.

The feeling of life as endless coming and going, as infinite movement supports Buddha's Jatakas and the Avatars of Vishnu.

In the reliefs on the railings of the Stupa from Bharhut many Jatakas are present at the same time. Their succession in time has changed into a co-ordination in space. The Buddha in his former existences need not wander through ages and ages. Supported by the undulating flow of the lotus stalk his previous births are brought near one another and one form of existence gently glides into the next. This form of composition has the peaceful and perhaps also the tired monotony of life which goes on repeating itself with slow measure throughout the *Yuga* in which we live. Now the Buddha is a clever cock and then again a young Brahmin, and sometimes an elephant and sometimes a deer and that stalk of the lotus which surrounds his cock—cleverness with such compassion does not diminish its attention or alter its direction when the Buddha proves his unfailing wisdom working through the humble mind of a young son of a Brahmin. And so his incarnations and the remarkable event that happened in each of them are passing by like beads on a thread, but the thread is a lotus-stalk and the beads are events and their order is alternate, for to heighten their importance and to give proper surroundings to them, jackfruits and others, big like nightmares accompany them in regular succession. Such is the pictorial way of expressing life's unbroken continuity, which has found its myth in the Jatakas and its abstract concept in Karma—nothing in the myth however suggests its association with a lotus stalk, nothing indicates the assistance of absurdly big

fruits in fantastic variety. Nothing tells that the Buddha however, so marvellous the gifts of his character were, whether in the shape of animal or man, was equal in size to flower and leaf—and we are nowhere told either that however so great the significance of a Jataka was, still it could not rival the greatness of a bunch of leaves or fruits or that of a necklace. But that is how art tells its myth. Undoubtedly, the actual happening is less distinguishable than if the fable were told by words, but what is so clearly formed in the relief is the inner meaning of the myth. The monotonous melody of the lotus stalk sounds near the endless vibration of the infinite and creates through its simple form the suggestion of life eternal, yet continuously transforming.

It is by these means that art creates myths. Their mythical significance results from relationship, which again does not belong to the logical order of the intellect, but to the constructive instinct of the creative impulse. Indian art has not only myths as tales, but it creates those myths in a manner which tells to later generations of more and deeper connections than which are stored in a fable. Bharhut represents the classic form of the Buddha legend and no revelation could be more succinct, and naive. Buddhism in later centuries, overthrown by Hinduism, lost its importance for India, but the law of composition which reached its classical formulation in the early Buddhist monuments remains a motif recurring throughout the whole of Indian art. It is the lotus-tendril with its ever calm, infinitely variegated and untiring curvature. The Jatakas go on through ages until the last incarnation is reached. It is final, and the ever running wave of life and death has flown into the ocean of *nirvana*. But the wave of composition, the wave of life continues its flow however, so, many Buddhas may attain perfection in the meantime, for it does not illustrate any special doctrine or message, but being art it is the unconscious thought, precisely elaborate form of nameless life, as is felt by the Indian.

The lotus creeper therefore—but no lotus creeper exists in nature—the lotus that flowers in the world of art and extends its stem as endless wave over the monuments—is the visual form the genius of India found as an expression of that superabundance of life-energy which is called *karma* and found its historical myth in Buddha's Jatakas.

Another myth, that of Vishnu and his avatars, is based on the same cognisance of life. Still the starting point has been shifted. The Jatakas being retrospective—for their principle existed from the beginning—form one chain of continuous existence. The avatars, on the other hand, sudden, unforeseen outbursts of divine energy become visualised by various independent compositions concluded in themselves, and pointing to nothing further. In them the cosmical event is concentrated into one single moment while in the Jataka its life is unfolded. Avatars similar to metamorphosis, and to the transformations so frequently related in Northern mythology lend themselves to pictorial representation.

The Boar incarnation of Vishnu, for instance, unites the idea of the boar, whose innate custom it is to dig deep into the earth with a geographical notion, namely that the earth, the dry land, has been rescued from the sea; Vishnu, the preserver of the earth rescues in shape of the primeval boar the Goddess Earth—and imagination hurries on combining—the Goddess Earth who has been kidnapped thither by the demon Hiranyāksha, the enemy of the Gods. And other preconceived figures and actions accompany and complete the heroic poetical picture of the Varāha-Avatār. *Śeṣha*, on whose wide-spread hoods the earth is supposed to rest rises from the ocean along with the Boar God, worshipping him. The devas worship the God from above, the sages on the right, and Brahma and Siva on the left. They express the joy felt by the entire universe on this occasion.

Thus the mythical happening appears reflected in our mind, step by step, adding to the figure of the God that of

the Goddess combining with either of them the serpent God. At last we have to join the circles of worshippers and the *devas* worship from above, and Brahma and Siva and the sages on one level with the Boar-God.

Such is the mythic subject-matter of the relief from Mamallapuram. In the middle of the composition rises the God. He raises the earth, and the accentuated parallelism of vertical lines makes them appear rising and rising, surging from unknown depth into unknown height and the attendants to the right and to the left worship and render homage to the rising God by realising his uplifting career in their own limbs which are made to accompany the central figure by their straight verticalism. And their movement would grow into the infinite if not the God were fettered to his burden, the earth, whom so willingly he took on his arm; but this fetter is his halo, the crowning shape, radiating from his God-head. How his arm clasps the leg of the earth, how her tranquil sitting corresponds to the God's energy, manifest in the clasp of his hand and the bend of the arm so that they form an inseparable connection; and all the others, to the right and to the left, at the same level and lower down are nothing but the emanation of the God's energy which spreads round him in the form of the circle. Yet this circle is left incomplete, so that the rising movement is not counteracted by the stability of the round one. Quality and heroic action of the God are thus visualised by vertical lines and circular movement and the reality of the myth is led back to its inmost and primeval significance. Names are forgotten, mythical experience has gained visual form.

Vishnu, in several of his avatars, is given form as centrifugal energy radiating from one upright centre, his upright posture. Trivikrama, the God who took three strides, is transformed into a purely dynamic composition of linear energies. Myth expressed through words invents a fable, myth created by art makes the inherent relation of the visible

world manifest. The legend runs thus: Bali, a powerful Demon King, conquered the three worlds and ruled in them, in spite of his birth, in charity and with justice. Indra, the chief of the Gods was thus superseded. Vishnu as the avowed destroyer of the demons and the upholder of the Gods had to restore Indra to his legitimate positions. Vishnu could not go to war against Bali as he was a virtuous king. So he went in the guise of a dwarf, Brahman, a student of the *Vedas* and begged of Bali for three feet of land on which he could sit and meditate on Brahman undisturbed. The generous Bali granted the request. But what was his astonishment when he saw the cunning God grow to a height transcending the world taking at one step the whole earth, covering the sky with the next and demanding of Bali to show him room for the third. True to his promise, Bali offered his own head, on which the God placed his foot and sent him down to the lower regions. Greatly pleased with the king's nobility and firmness of character, Vishnu is still supposed to be guarding as his servant the palace of Bali in the world below.¹

To the carefully scrutinising mind of the archæologist the relief from Mamallapuram seems to represent the God with eight arms. He notices further the foremost arm on the right supports the lintel while the remaining three hold the discus, club and the sword. Of the arms on the left side two hold the bow and the shield; the third has the conch and the fourth is pointed towards Brahma seated on the lotus. This Brahma has four hands. He reverently touches with one of his hands the toe of the uplifted leg of Trivikrama and with another touches the finger of the God pointed towards him. On the corresponding right side of Trivikrama is found apparently Siva, also on a lotus-seat. The Sun and Moon with circles of light behind their heads are seen flying in the air, half way down the high face of the

¹ From Kris'na Shastri: *South Indian Images of Gods and Goddesses*, p. 30.

God. Two other heavenly beings, one of which is on the level with the head of Trivikrama and has a horse-face, are also flying in the air. The seated figures at the foot of Trivikrama are apparently Bali and his retinue, who are struck with amazement at the sudden transformation of the stunted Vāmana into the all-pervading Trivikrama."

No doubt it is difficult to enter the abstruse action of personages who are at least irrelevant to us and who moreover exhibit such touching scenes as for instance the four-handed Brahma, who with his one hand reverently touches the toe of the uplifted leg of Trivikrama. Although all the episodes mentioned are represented in the relief, they do not constitute its existence. And leaving away all what folklorists and archaeologists might have to see and to say, the relief creates the radiating of the sun with such phenomenal energy that arms and legs are no longer limbs, but strong and piercing forces, bursting out from one common centre, penetrating everywhere, upwards—and the high crown—it becomes higher and higher, it almost is a beam and those many arms, disc of sun-rays, are thrust forth and penetrate the variegated forms of matter scattered about and they are made to assemble in the round glory of the upholder of the universe, whose one leg is sent downwards to give light to the lower regions, a radiating beam that pierces the heavy dullness of the ground, which is basis and counteractor. Greatness is simple and what could be simpler than a horizontal line, on which a vertical line reposes, this line being the diameter of a circle. Through the inner relationship of horizontal and vertical, of horizon and zenith, sun, the all-pervading upholders unfolds the circle of his rays.

The Jataka, expressions of life's continuity, found their corresponding form in the undulating movement of the wavy line. The Avatars, on the other hand, expressions of the intensity of life in every of its moments were realised by art

through the correspondence of vertical line, horizontal line and circle. Viewed closer these two diametrically opposed types of artistic form contain both the same elements, for a wavy line is nothing but a circle adapted to its extreme components, now following the horizontal, now the vertical, or seen from the other end the wavy line consists of a horizontal and of a vertical line which are brought to union by the roundness of the circle. The wavy line is the integration of the myth of life, visualised by Indian art, while the other type of life concentrated into the tension of every second of reality welds the contrast—of vertical and horizontal—into the unity of the circle.

These compositional types, however, do not result from the myth, which is their theme. They are inherent qualities of Indian art. The myth is the verbal and the form the visual expression of one and the same experience of life which belongs to India. There is, of course, nothing conscious in this relationship, it is like one special kind of leaf and one special kind of flower which belong to one plant. Leaves from a different plant will not match that flower, but we cannot give the exact reason why they don't. The mythical experience of the artist finds form as expression, that of the poet words, concepts. Both may meet and become fused if the ultimate significance of their vision is the same. Apart from the mythic form, Indian art has given to life in the two aspects dealt with, some more distinct types of mythic experience were evolved. These, however, are based on the selection from and combination of the elements contained in the two standard types of Indian form that of Jatakas and Avatars.

Krishna Gopāla, the cowherd, the flute-player, is to Indian art a theme with infinite variations. His limbs sing all the melodies which his flute ever could play. The right foot crosses the left, the left arm crosses the body—or the position may be different, but that crossing from rest to movement

and from now to then is the characteristic time of Venu- and Madana-Gopala's attitude. His body swings accordingly to the left, to the right, to the left, in that leisured rhythm, which is so favourable for playing the flute. And his arms, two or four or many more, make the sweet sound of the flute vibrate on and on. The happy state of a perfectly balanced, perfectly harmonised existence is visualized by the artist in this vertical and horizontal play of the wavy movement. It is so ideally human, this equilibrium of unrestrained emotion ; taking its natural flow it builds up the existence of Krishna as a work of art. Krishna is not only one of the most popular heroes of India. The compositional form which found in his figure the most graceful and exhaustive realisation, is the most popular attitude amongst those figures of Indian art, who are not forced to registered gestures conveying their message. The Tribhanga, and the light and the extreme bent Abhanga and Atibhanga, all compositional forms of leisured life, which does not express anything besides itself, belong to one order, with Krishna's attitude. Human life undisturbed and unfettered, this is a part of the great stream of life which flows through the undulating line in which the Jatakas take place.

The circle on the other hand is used exclusively when Śiva dances his cosmic dance. The wavy curve was the form of progressive life, and therefore equally belonged to Jatakas and to *one* form of the chain, to human or organic life in general. But the circle, completeness in itself, is form of cosmic existence. It reveals the life of the Gods.

Śiva's dance has mystic significance, but its conception belongs to an imagination that creates myth and not mysteries. Indian art, however,—so mystically its subjects may be interpreted or however so mystically they affected the mind of the self-abandoned worshipper—Indian art, as all art, has nothing to do with mysticism. It is, however, mythical and all great art *is* mythical. Mysticism belongs to life. It

represents its most sublimated form realised in the human soul as union with the soul of the universe. Poetry might have some mystic happening or feeling for its subject, still the creative work of the poet never can be mystical. The mystical experience finds fullest realisation in the life of the saint. But saints—as a rule—are not artists. The artist, on the other hand, has the vision of the saint; he does not however apply it to his further psychical career, but detaches it from his person and makes it concrete through some material or the other. And as his vision needs the special material, whether word or stone or sound, so it needs materialisation in some special imaginary happening, which must be separated from the person and woven into a new context. While mysticism is a state of spiritual human existence, the myth is a deed of the human spirit. It is creation. Deeds exist in themselves and apart from the individual, which they contain in an transubstantiated and immortalised form. The experience of the mystic dies with him and it needs another mystical inclination to realise his experience, if recorded. But works of art are universal and only the eye of Majnun is needed, to see the beauty of Leila.

Myths and works of art are creations. They represent or visualise the relationship of the cosmic to particular in one definite connection, which through intense narrowness, that is through the concentration of vision, can afford to be universal.

Curves can be endlessly modified, but the circle is confined to itself. Krishna's figure leads the dance of all the Bhargas of human postures invented by Indian art but it is only Siva who can dance the dance of creation, the perfect circle.

Siva dances that dance which leads from creation to preservation, from preservation to destruction. Where does his dance begin? It has no beginning and it has no end, for it is. Such is the state of the world in any moment of existence. Past, future and present are divided in grammar

and history but not in the moment of actual life. And therefore his dance turns in a circle and a halo of flames is around him.

Krishna and Śiva types, combinations of undulating curves and combination of circles are expressive of the moment of life in its entirety, of the moment of human life in full equilibrium, or of the moment of cosmic life in full reality.

Other myths correspond with other forms. Pure symmetry and vertical parallelism are rare though precious creations. They are visualised through Buddha, Vishnu, Sūrya, etc. They characterise the single images, set up for worship, in sitting or standing attitude. Vertical symmetry in motionless regularity owns the hypnotising sternness, required by an image. In this respect the Indian conception does not differ from that all over the world. It is the adequate form of transcendentalism, known to Egypt and Byzantism in a highly developed degree, but brought to perfection in India too. Prajñāpāramitā, wisdom that has reached the yonder shore, resides in unapproachable perfection, aloof from motion, aloof from the movement of soul. Her verticalism, conscious principle is redeemed from its rigidity, by perfection.

The Buddha participates in the solemnity of verticalism. The Buddha-image always is subject to it. The moment however the Buddha is represented in one of his miracles or acting amongst men, at once his figure assumes graceful liveliness carried by a play of undulating curves. One of the most accomplished Buddha-images is the sitting Buddha from Sarnath. His being rests in absolute symmetry. The verticalism, however, is dissolved into triangle and circles. They give structure and softness to his beatitude. His face is round like a circle, but his halo is still a bigger one. And circles like veils glide down his lionlike, smooth body. They rest on his lap and triangles come to their help, so that they may not overflow. The Buddha's verticalism is enshrined in a triangle, his compositional outline is an equilateral triangle

in unshakable quietude. And the smooth and round arms guard the Blessed One's body which is of superhuman beauty, by two more triangles. And where his hands meet is the point of the equilateral triangle which has the shoulders for its base. Triangles pointing up and down, intermingled with circles—and these have no direction—form the symmetrical pattern of the Buddhistic art form. Symmetry and vertical parallelism, the most commonplace artistic composition which corresponds to the conception of the supernatural, is one amongst many forms India created in relation to mythic contents. The myth of life ever flowing, ever changing, ever present, cannot be compressed into one geometrical abstraction. Vertical symmetry embodies a state, superior to the accidental. It has permanence, but more that of death than of eternal life. And still there is energy in it, that energy of sitting straight upright which so well befits a Buddha.

The power however of the straight line becomes enhanced when it is made to slope. In slanting position it points towards an end, it loses its God-like balance, it rushes down laden with demoniac energy. Durgā slaying the demon, Mahishāsura makes her whole tremendous weight rest in the diagonal slope of her menacing gesture. All the slaying, destructive compositions have this diagonal arrangement. Even Vishnu in his *Narasinha* avatar slaying the demon *Hiranya-kasipu* struggles between the maintenance of the attitude fit for his personality and the sway which embittered brutality gives to him.

Myth and form followed their own respective inner development but as necessary consequence of their intercourse, mutual influence resulted. May be that Vishnu's man-lion incarnation, where he is made to break out of the midst of a column—was subconsciously suggested by those phantastically carved wooden posts, where grotesque animals hide their terrifying bestiality in rhythmically sculptured arabasques. Myth on the other hand now and then directly influenced

form. Ardhanārīśvara, the male-female oneness of Śiva-Pārvātī, makes the statue right-side male, left-side female and their artistic unity is not less than their ideal one. For whatever the right half indicates, the left half carries it out. Every vibration of the right is brought to perfection in the left, the right leads and the left supports, the right commands and the left carries out, the movement of the right is vigorous tension, that of the left its relaxation and roundness; the right is male and the left is female.

The form of Ardhanārīśvara clearly shows how the art instinct of India works. The Greek representation of the hermaphrodite, for instance, expresses the same union of the two principles in one body. But while Greek imagination is making the physical body into something in between and containing both, the Indian artist is not eager to create a new more complete, more beautiful type of man, but he leaves either half as it is and unites them by the magic of art, which finds a sameness of line in the male and in the female form and sees their variety and charm in a modification of the underlying life. And so they can be blended together in the completeness of art which thinks of lines and plastic and volume related to expression but which is unaware whether physically the union represents a successful enlargement of the human type.

Indian myths are without number and so are the forms. Art, one is apt to suspect, makes lofty imaginations concrete. This however is an unartistic prejudice although it made Moses and Mohammed and all iconoclasts condemn pictorial representation.

It is however a paradox, that art leads myth through form to namelessness. In other words, the mythical value of Indian art consists in form, in that correspondence of all figures and all action represented which is visible as circle and line, triangle and symmetry, universal relationships, which are superior to and

annihilate the well-defined shape, the name symbol and allegory.

Mythical experience lies at the root of the Indian form. Necessarily, the mythical experience does not only create heroes, but also a heroic, a corresponding way of telling about them. Epic form, though generally post-mythic, seems to be the most adequate. Art too found for its mythic experience a corresponding way of expression, namely the "continuous representation." Wherever Gods are believed to be amongst men and to live with them and yet to remain Gods, art, in representing their actions, or in representing any action which necessarily is linked to them in one way or the other, transforms time and space of actual reality into a new unit, the space-time of the heroes. This phenomenon is realised not only by the Indian artist, but it occurs in exactly the same texture in China, Egypt, Pagan and Early Christian Rome. It is the art-diction of mythic experience. Continuous representation for instance is shown in the Jetavana-Jātaka from Bharhut. The merchant Anāthapiṇḍika purchases the grove. He is bodily present when his servants are paying the price by covering the ground with money. He stands near the bullock-cart, but he is bodily present in the same relief once more, when he, after the purchase of the grove has been finished, and after the monastery and sacred buildings have been erected, dedicates the monastery to the invisible Buddha, standing in the middle of the relief and pouring out water over his absent hands, and Prince Jeta and crowds of worshippers are already approaching the monastery. Thus the event as a whole is compressed into one significant moment and finds representation in one relief. Myth is timeless, its reality and significance are everlasting and the measure of that timeless reality is the system of the relief, which unites in one frame all the important phases of an entire story.

Subject-matter, form and diction of Indian Art, are mythical. Even architecture is intimately connected with it. For

the central shrine surmounted by a spire or dome which crowns the God's image or his shapeless presence is accessible through a hall in front, in which or just outside of which will be placed the image of the deity's chief vehicle, the Nandi-Bull in Śiva's temple and the Garuḍa bird in Viṣṇu's temple, thus forming a suitable residence for the Gods on earth and for the mythical experience in visual forms.

STELLA KRAMRINCH

THE RATIONALE OF BANKING LEGISLATION

Banking is of high antiquity but our ancestors were familiar with banking credit; at least history credits them with that knowledge. Archæologists have discovered clay tablets of credit that were in use in Assyria. Students of Manu, the famous Indian lawgiver, are familiar with his well-known laws regulating the use of credit. The Athenian money-changers did business somewhat closely akin to modern banking business. Xenophon implanted the idea of a bank but he was too far ahead of his time. In the "argentarii" of Rome can be seen the nearest possible approximation of a modern banker. The barbarian invasions of Rome and the ensuing unsettled conditions of Europe during the Dark Ages must have prevented the early development of banking business. During the Middle Ages, the money-changers of Italy revived their business and the Jews, thanks to the persecutions of all continental countries, perfected the beautiful bill of exchange. The successful lead of the Italian merchants and their religious zeal to collect the papal dues while acting as the emissaries of the Pope in the continental countries led to a very extensive use of the bill of exchange. To Italy belongs the credit of having founded the first bank, *viz.*, the Bank of Venice, 1167; the Bank of Genoa, 1345. The Italian money-changer, the Jewish money-lender and the Lombard Street financier are the important connecting links in the banking chain. With the advance of centralisation in commerce and in national life the necessity for public banks arose. The development of manufactures and rapid growth of international trade led to large-scale banking and to-day, banking business is regarded as an honoured profession and it has received such a wide and varied form that it is hard to believe that our primitive ancestors were familiar even with the rudiments of banking credit.

If banking business is of such hoary antiquity and if state regulation of bankers and banking credit was well-known to our ancients as evidenced by the Athenian regulations, the Code of Manu and the Justinian Laws, the modern State need not feel ashamed at the perfunctory manner in which it attempts to control the modern banking business in the interests and well-being of the nation.

Besides this historical justification, there is another cardinal reason why the State should control banking business. The modern banks can make or mar the future of a nation. With the entire credit mechanism of the country controlled by it, with the whole floating capital of the nation deposited in its hands, with the nation's material future entrusted to it, and with the "fate of the nation lying on its lap," the modern banking system is indeed a vitalising force which if exerted in the right and proper channels is fraught with immense possibilities. With a judicious selection of their customers and with timely loans to them, they can build up the manufactures of a country and direct capital and labour to the most productive channels. By creating thriving industries, they can add to the national wealth of the people and bring contentment to the wage-earning labourers. They can accomplish all this and more.

But their power to do harm in case of misdirecting capital, encouraging speculation and wrongly investing is no less considerable. What the State aims at by wisely-directed banking legislation, is to maximise the advantages of sound banking and help the banks to better perform their task. Modern Banking is reckoned as a quasi-public service so that it must be watched and properly regulated. The anxiety of the State is to see that banking accommodation is extended to all the deserving persons on equal terms.

Again the failure of a bank creates a vicious circle and ruins several people. Though the State recognises the impossibility of legislating to prevent failures yet it attempts to

prohibit banks to do business of an unsafe character or alien to legitimate banking business.

The State while passing laws of a restrictive nature forbidding the banks to do as they like, is not altogether unmindful of the interests of the banks. It recognises the social services of the banks and gives them special facilities. The special laws about the negotiable instruments and other concessions shown to them, as the general lien of the banks, the Law of Estoppel and the Bankers Book Evidence Act are an evidence of this grateful recognition. While treating them very leniently, the State does not forget to restrain effectively their power to do harm to the public by their own indiscretion. General laws are passed, so as to attain uniformity and prevent favouritism.

Banking legislation extends from the Central Bank right up to the ordinary Joint-Stock Banks. The Central Bank is always made to work under special provisions incorporated in a separate charter. The Central Bank is the favoured child of the State. It performs valuable services to the State and obtains valuable concessions in return for them. The ordinary Joint-Stock Banks are incorporated under another law common to all of them.

Private banks escape vexatious government control in almost all countries. Their importance is, however, dwindling day by day. So long as they are under able financial guidance they earn the gratitude of their country. But the continuity of such able financial guidance is not assured in all cases and many ignominious failures have occurred in the past. Hence private banking is diminishing in importance. In England and America public opinion is decidedly against them and they are virtually forced to amalgamate themselves with other concerns by virile competition prevailing in the money market. Here, as elsewhere, the case of India forms a notable exception.

In India, the private bankers (indigenous bankers as they are styled) are going on as usual but the growth of the

co-operative credit societies is leading to the narrowing down of their clientele. The education of the masses, the general stability of the Joint-Stock Banks, a wide diffusion of sound banking facilities and the general apathy shown by the indigenous, that is, private bankers towards industrial development will certainly tell their own tale in the long run. These indigenous bankers, unless they become more progressive and adopt the best features of Joint-Stock Banking and adapt themselves to the changing needs of our society, are bound to disappear in our country also. But they are still a powerful element in our banking system to day.

The case of Joint-Stock Banks is different. They are under able financial guidance and influential directors can mould these institutions into such a shape as to bring about the greatest good of the greatest number of people in a given society. The necessity to earn profits must force these banks towards progress tempered with caution. Hence Joint-Stock Banks are on the increase everywhere and as the banking blue book indicates they are also increasing in numbers in our country as well.

The main reasons why the State is so solicitous to procure sound banking conditions have been set forth already. But something more must needs be stated to explain why Joint-Stock Companies conducting banking business are differentiated from other Joint-Stock Companies and treated separately. One law does not suit both of them because the banks are lending institutions while Joint-Stock trading concerns borrow money for their business. Secondly, banks create and protect credit; while other Joint-Stock Companies receive credit and exploit it. So banking companies have special safeguarding rules to protect and help them.

While usually one law is considered sufficient as regards the process of formation of trading as well as banking

companies the latter are subject to additional legislation of a very detailed character. Very careful prescriptions of law extending to every important item of banking business are laid down in order to bring about full trustworthiness of these banking companies. The amount of capital, the accumulation of Reserve, the character of loans and discount business, the nature of the Cash Reserve and its proportion as against the demand liabilities of the bank, and the very quality of the investments of these banking companies are all subject to stringent regulations for the following reasons :

Capital :

The capital of a bank is the money subscribed by the shareholders. It stands virtually as a guarantee to the customers of the bank inspiring them with confidence. Banking business is purely a question of mutual confidence between the depositors of the bank, and the banker himself. Banking business consists in lending other's money and as Lord Overstone says "banking business is a business of the brain with other people's money." A paucity of capital will not enable the banking institution to execute its tremendous task of responsibility and trust efficiently, hence the legal regulations against inadequate banking capitalisation. In the case of new banks, there is always an impairment of capital for the first few years as expenses run in excess of interest collections and unless there is a large amount of capital actually paid up at the start, it is difficult to meet with success.

Accumulation of Reserve :

Coming to the Reserve, the State aims to compel the banks accumulating a decent Reserve in order to help the bank in its operations. The Reserve is virtually the shareholders' property and can be locked up with impunity and the

greater the Reserve, the greater is the confidence inspired in the minds of the customers as regards the ability of the banks to discharge their liabilities.

Loans and Discount :

It is by loaning that a bank confers its greatest blessings on society and its business. The strength and safety of the bank depends on the character of the loans it grants. The bank has not only to select judiciously its customers but must not commit the fatal error of lending too much of its loanable money to any individual firm or undertaking. The object of the legislator is to see that the bank distributes its risks over several concerns or individuals of the most unimpeachable honesty, financial rectitude and business capability. Another object why loans by banks to its officers and directors are restricted, is to see that no greater line of credit is granted to them than they can obtain from any conservative banker. Even in the matter of discounting business, the anxiety of the legislator is to curtail the freedom of the banks from accepting anything except first class paper or tying up their money in transactions of a spurious character.

Cash Reserve :

The Cash Reserve of the bank is not only the foundation of any credit that can be created by it but is an insurance fund against risks. It enables the bank to meet any unusual and extraordinary demands made on it by the depositors. The object of regulating the Cash Reserve, fixing its dimensions and even prescribing its actual composition is to enable the bank to better perform its task and as the bank is always saddled with large and numerous "demand" deposits to be paid, there should be a guarantee that it can meet the depositors' call. That is why a generous Cash

Reserve is always stipulated for. The desire to earn profits is very natural and the tendency to reduce the Cash Reserve almost to the breaking point or "apprehension limit" as Bagehot puts it, has to be curbed by laws and there is nothing unwise about it.

But much has been written condemning all legislative interference in the matter of the Cash Reserve. It is said that a legal limit to the Cash Reserve tends to make it inelastic and any law prohibiting its free use in cases of rare emergencies is meaningless. As a recent writer says: "An iron ration which you must not touch even in the throes of starvation is something of a mockery."

It is indeed true that a sense of false security may be the result of any legal limitation of the Cash Reserve. By keeping the prescribed limit of the Cash Reserve, the bank may think it has done everything it has to do.

Although there is much truth in these remarks, the existence of laws which permit a free use of the Cash Reserve under certain conditions, certainly helps the amateur bankers and keeps under restraint "adventuresome banks" which wish to spread sail and provide for the storm only when it actually descends on them. Cast-iron laws do not bring about a better management of the Cash Reserve but the fact that the Cash Reserve is kept and that it enables the bankers to meet some portion of their liabilities, is a source of confidence. Again, it limits the field of disaster that may be brought about by injudicious or adventuresome banking. Instead of overwhelming and complete bankruptcy there is something which enables the banker to dole out to its creditors.

Successful banking is virtually dependent on a careful management of the Cash Reserve. While recognising that "the Cash Reserve is dead money and makes no contribution to dividend whatsoever," as Professor Foxwell puts it, the bank managers should possess a cool head, sound judgment and a

resourceful mind. By constantly adjusting their discount rate they should bring about satisfactory conditions always. Very few banks realise that it is better to err on the side of caution and provide a large Cash Reserve, thereby making a part of it idle, rather than be adventurous with a smaller Cash Reserve. The banks should not only rely on their ability and management "to muddle through somehow" as Lord Rosebery puts it. To avoid failure is far more important than to heap up high and precarious profits. As Bagehot says, "adventure is the life of commerce but caution if not timidity is the essence of banking."

Quality of Investments :

As regards investments, that is, the bank's holding of gilt-edged securities, the object of the legislator is to make the banks invest their funds in such a way as not only to yield profits but see that they are at the same time liquid. Only first class securities are to be held and these should possess absolute strength and safety and be easily marketable with the minimum trouble and risk of loss. As several of the ordinary industrial securities do not possess these coveted features, the banks are prohibited by law to invest their funds in them.

In addition to these laws hampering the freedom of the banks almost in every kind of their business, the State insists on the banks publishing their transactions periodically. Although some of the banks may resort to the pernicious practice of window-dressing at the time of publishing their balance sheets, much can be gained by publicity. The furnishing of a well informing balance-sheet which artfully unfolds the tale of progress and increase of business, is by itself the most successful method of attracting customers to the bank. The banks have realised the manifold advantages

of publicity and they are coming forward of their own accord to furnish all details of their business transactions.

This is the *raison d'être* of all banking legislation and there is ample justification for the State regulation of banking business. The State knows full well that the banks cannot be made safe and well managed automatically by its laws. It realises that no system of examinations can be a perfect one. It always grants considerable latitude in the matter of loans and knows clearly that to impose a dull uniformity without paying any due heed to the changing conditions of different localities, will be of no avail. Hence it is wise enough always not to descend to details. It is fully conscious of the fact that honesty, integrity and capacity cannot be obtained through the process of legislation. It cannot and does not aim to legislate so as to secure people from their own incompetence, their own lack of thrift and their own lack of business qualities. Such is the psychology of the bank-controlling mind.

It is indeed difficult to explain the absence of any banking legislation in our country. It cannot be attributed to any lack of knowledge in this particular sphere. Our embryo Central Bank and semi-state banking institution which has recently been created in our midst—the Imperial Bank of India—is controlled by the State. Its position does not cause any great anxiety for the State in the fullness of its banking wisdom has retained the old rules of the Presidency Banks' Charter Act of 1876. It is only the position of the newly started and small Joint-Stock Banks that is eminently unsatisfactory. The wonder is why the State has not thought it wise on its part to fetter the hands of these Joint-Stock Banks also by well-drafted regulations.

Another instance which goes to prove that our State has realised a high conception of its duty towards these banking concerns occurred quite recently during the days of the banking crisis of 1913-15. It volunteered help to all the sound

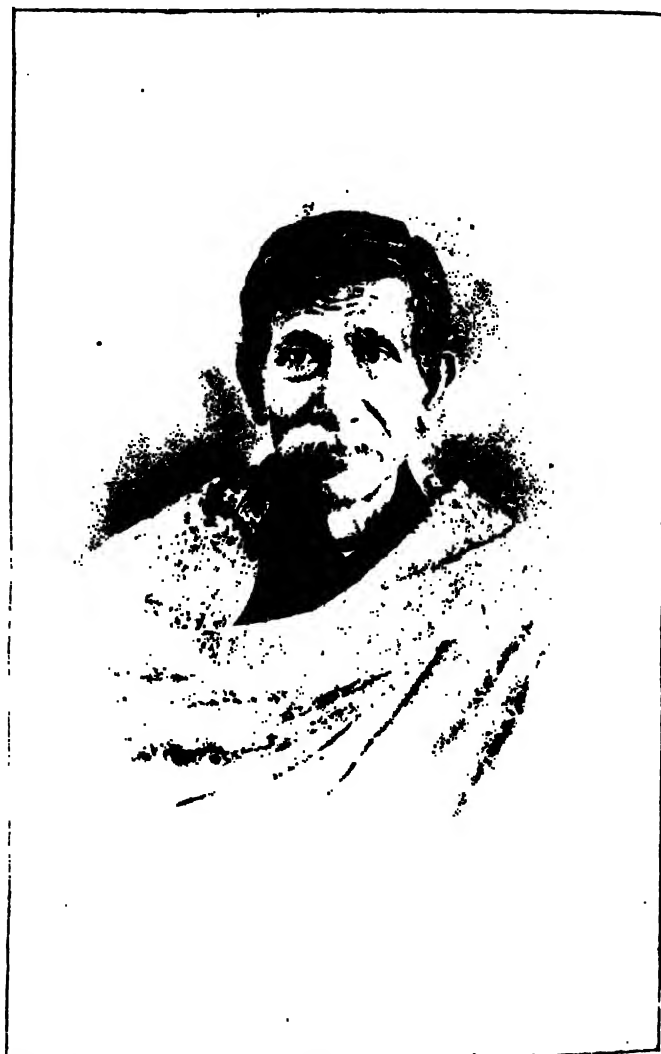
banks but the old Presidency Banks through whose medium and intervention the State wanted to help, did not rise equal to the situation and this forms one of the worst spots in the dark pages of their history. They have cast to the winds the expansive theory of banking which Central Banks ought to pursue during the period of a crisis.

Again, their policy of welcoming all foreign banks and extending an open door to them has resulted in much good to our country. These have not only popularised banking business in our country but are the standing monuments of a conservative policy always standing for slow, sure and steady progress in banking business.

But the *non-possumus* attitude of our State towards the smaller and newly arisen Joint-Stock Banks is hardly creditable to it. The existence of some kind of laws, good or mediocre, would have prevented several failures or at least would have mitigated the intensity and severity of our banking crisis and this subject will be treated at length on another occasion.

B. RAMACHANDRA RAU

The Calcutta Review



MATILAL GHOSH

(BORN 25TH OCTOBER, 1845 ; DIED 5TH SEPTEMBER, 1922)

By courtesy of the A. B. Patrika

VILLAGE EDUCATION

(*A practical Scheme.*)¹

That learning and knowledge should be pursued for their own sake, however desirable a maxim it may be from the idealistic stand-point, it is a truism that barring the few, very few, in this world, who have the will power to dedicate their lives to a search after knowledge for its own sake, the great mass of population in any country, even the higher classes, pursue and value knowledge, specially book learning, only so far as they need it for the practical purposes of their everyday life. If this is true of the higher classes, then how much more must it be true of the village population and if the mass of village population in India has not yet taken so kindly to primary education, the main causes of this apathy of the population, apart from the comparative neglect of state support, may be traced to the following tangible reasons among others :

(1) The courses of study were framed much more on the lines of education designed for the urban population and too far removed from the everyday life of the villagers.

(2) This lack of touch between the course of education in primary schools and their everyday lives was bound to give rise to a sort of apprehension in the minds of the villagers that the education their children would receive in the schools would make the latter more like gentlemen and therefore less fit for their future hereditary callings in life.

¹ This article was written more than a year ago for the use of the Primary Education Reorganisation Committee of Central Provinces and Berar, before the writer had any opportunity of seeing Mr. Biss's report on the reorganisation of Primary Education in Bengal. If there seem to be some points of similarity between the two, they are nothing more than coincidences which are more or less inevitable when several men work on the same subject.

(3) The majority of the village rustics being very poor, the withdrawal of a boy from home to school meant a withdrawal of the help the father used to receive from the boy for his daily work and thus a direct economic loss.

If primary education is to be made really popular,—and not merely superficially popular through high state expenditure and compulsion,—it can only be done by trying to remove these root causes and making the village population see with their own eyes that the education state is designing for them, is expected to be a further help in their everyday life and not a clog. So the village boys in addition to their book education in school (reading, writing, arithmetic, etc., which again should be so designed as to be in close touch with their everyday lives) should be further engaged for at least a fair proportion of their school time in pursuits of the same sorts in which the bulk of the village population is engaged, such an arrangement will have a triple advantage :

(1) It will remove the apprehension of the villagers and the boys themselves that the school education is going to withdraw them from their usual avocations.

(2) Village boys have very little practice of brain work and continuous book work, however elementary, is sure to tire them much ; alternation of book work with manual work of the sort they are accustomed to, will give them zest and recreation and make their school work pleasanter.

(3) Properly directed the manual work of the boys may even be made to pay and once the villagers understand that their village school is going to make their boys good villagers instead of bad townsmen and that the time their boys spend at school is not going to be an entire economic loss to them but may, on the other hand, be even a source of gain, the tide of village sympathy is sure to turn in favour of the village schools.

To get some idea as to how the above set of conditions may be realised in practice, it will be necessary, first of all, to

go into the most important necessities of a villager's life. The prime life-work of the majority of villagers in India is agriculture ; all require cloth to wear, and next in order of importance implements like ploughs, wooden paddy huskers, etc., and village carts, to confine our attention to only the most important few. If in a primary school, the villagers see their boys devoting their whole time only to purely literary pursuits like reading, writing, arithmetic, etc., the things which they themselves do not understand, it will be strange indeed if they do not begin to look on the whole arrangement with suspicion as tending to take the minds of the boys away from their hereditary pursuits ; if on the other hand, matters could be so arranged that along with the purely literary pursuits like the above, boys might devote a fair portion of their school time also to (1) agriculture—I mean real manual work pertaining to agricultural work and not mere theory only in readers—(2) a portion of their time to spinning and weaving cloth by starting from raw cotton—cloth which they might take home for themselves or their parents to wear, (3) another portion engaged in learning how to make ploughs, wooden paddy huskers, village carts, etc., not only the villagers would not look upon such a primary school with suspicion but will receive it with open arms.

The next question automatically arises as to how to arrange practically such a combination of a literary with a village agricultural and industrial work without making the whole arrangement prohibitive in expense. I would proceed on some such imaginary plan like the following—I will first of all spend enough time in explaining to the people of four villages conveniently situated with respect to one another (which would, so to say, form a unit in my scheme) that the primary education we would impart from now, was intended entirely for their own good, it was intended to form better villagers and not to take them away from their

hereditary occupations, that to teach them their hereditary work better would be the primary aim and the literary work the secondary one, and that the literary side too would be added only because it would facilitate to a great extent their work as villagers; that the internal management and supervision would be left in the hands of village unions composed of the head men of the villagers, that the *sirkar* would send officers only for inspection from time to time, and if any improvements were needed, they would be effected through the supervising village unions themselves. Suggestions from the villagers themselves regarding the course and curriculum would be freely invited and sensible and reasonable suggestions would be immediately acted upon, even if it rendered modification of some of the previous ideas necessary. All this preliminary work with the villagers is very necessary as it is desirable that from the very outset the villagers should look upon the primary schools as their very own and not as an exotic institution planted by outsiders in which they need not take any further interest. Having thoroughly enlisted the sympathy of the rustic population of the four villages, a convenient plot of ten or twelve acres, as centrally situated with respect to the four villages as possible, would be chosen and made over to the school—this expense will have to be borne by the education department or the villagers or both combined. About the middle of the plot three huts which need not be very expensive should be erected—(i) first for the school proper, where the village boys will learn reading, writing and arithmetic under a teacher who, according to my scheme, should be a competent agriculturist also, why it will be explained presently, (ii) second for the spinning and weaving side of the school where boys would learn these from a weaver whose business it will be to spin yarn and weave cloth for sale among the population, and (iii) third for carpentry and the smithy side where the village carpenter will make ploughs, wooden rice huskers, bullock carts, etc.,

and where any boys willing to learn this work may do so—this work, should not be compulsory but optional. It should not be difficult for the population of four villages taken together to support a weaver and a carpenter of the sort wanted, and thus while the village wants will be supplied, the boys will also get grounding in spinning and weaving and some in carpentry and smithy work also, for that will be the arrangement on which the weaver and the carpenter will be engaged. After learning spinning and weaving at school, the boys may later on teach their relatives at home so that those adult members, male and female, who have got leisure may do the work at home also and thus provide their own clothing cheap, if not wholly, at least partially. If it is asked that if all the villagers begin to make their own cloth, who will then buy cloth from the school spinner and weaver whom they have promised to support? The answer is easy; hand spinning and weaving are not such easy works that each one will at once be able to make multitudes of cloth for his, her and other family members' use; it will be only after a good deal of manual work that the adult members of a family, male and female, may be able to satisfy the requirements of the family even partially and thus even if some families go on producing their own cloth, there will always be more than enough demand on the work of the school spinner and weaver appointed by the villagers. We thus see how these two important adjuncts to the successful working of the village school can be obtained without any extra current expense—the villagers secure the service of a spinner and weaver and a carpenter by undertaking to buy up their handiwork and in return the weaver and carpenter are to teach whichever boys are willing to learn these trades. Thus barring the initial expense of erecting huts for them in the immediate vicinity of the school room, all other extra current expenses are avoided.

Now for the agricultural and the literary work of the students—these two should be in hands of the teacher himself

who for this purpose should be a competent agriculturist, best, one of those to be turned out from some such institution as an agricultural school. According to my ideas the agricultural knowledge of the teacher should be no less important, it is perhaps even more important, than the knowledge of teaching methods obtained from Normal Schools and I would therefore reverse the usual procedure of appointing Normal School-trained teachers directly as village teachers ; on the other hand, I would take such students from agricultural schools as are willing and appoint them to be teachers of village schools. Reading, writing, arithmetic and geography work for village boys should not be of such high standard as to be beyond a passed student of an agricultural school and if passing through a Normal School is supposed to be essential, such a student may be sent out for such training and then appointed. Now a teacher of this sort will naturally be more expensive than an ordinary village school teacher. How the post can be made attractive enough to make him willing to stick to the post and that too without much extra expenses, I shall now proceed to sketch. As said before, the school will have to fulfil simultaneously a manifold purpose for which it will be necessary to allot to it ten or twelve acres of land. Of the land so allotted (i) about two acres of land will be set apart for demonstration purposes by officers of agricultural department so as to show improved agricultural methods, sowing of new crops, etc., to the village folk of the four villages, (ii) about two acres of the land will be handed over to the teacher himself for his personal use for growing such crops as he likes best—this will be a substantial aid to his subsistence and if he manages it well it will also be an object lesson to the boys and villagers, (iii) the remaining six to eight acres of the land will be divided among the boys each being given his own plot for the cultivation of vegetables, etc., which he may take home for the use of his family or the plot may be cultivated as a whole by all the boys together under the supervision of the teacher for the most profitable crops of

the locality and then the produce divided among them equally. In this way the villagers will see that the boys are learning at school the very same things they would be doing later on at home when they grow up to be men, and further what is a most important point, along with learning, each boy is *earning* something for himself and his family. The same will apply to the spinning and weaving side of the school—whatever a boy spins or weaves out of his own cotton should be his own which he may take home if he wants; similarly in the carpentry and smithy side, in the beginning the boys will learn by helping the carpenter but as soon as they can make things for themselves, those they make out of their own material, should be regarded as their own property which they may take home or sell to others just as they choose. The great point in the scheme is to make the boys see from the earliest stage that whatever they can learn to do, will be for their own profit, for this is the only way to make them keen and ardent workers.

Now to come to the literary side of the school. I have taken up this point last of all because this is the side which has been looked after in the village schools with care up to this time and has already been much discussed. Being a literary man myself and knowing what the literary side can do to awaken and improve the faculties of a man, I yield to none in my request for it but what I am afraid of, as I have already tried to indicate before, is that a purely literary education in village schools is very likely to be unappreciated and not merely that, further, likely to be looked upon with suspicion and apprehension, unless supported by adjuncts of the sort I have tried to explain above. But although the literary side has been, up to this time, the only side which has been looked after in a village school with care, one point I am afraid, has not been so much attended to, as it should have been. We have one stereotyped system of primary education for all parts of the province whether urban or village and

what was in the beginning framed for the purely urban part of the population, has been gradually foisted upon the village schools also, forgetting the fundamental fact that the needs of a village population are of a much different type from those of an urban population. But this fundamental fact not being remembered, the urban system of primary education has been planted bodily in the village schools with the unfortunate result that the villagers find it naturally too theoretical and therefore too much beyond and out of touch with the practical needs of their daily life. No doubt experts specially conversant with the work will now be appointed to write out the primers and readers meant for village schools and so only a few general points need be attended to here.

(i) I have often heard it repeated in different places that the villagers do not understand the Hindi in which the primers are written and therefore primers meant for them should be written in their own special dialects. I do not believe in this except to a limited extent and for the following reason. If the people wanted to be served specially in this way, represent a definite aboriginal type with a dialect entirely different from Hindi, then the observation will have some force and primers may have to be made for them in their own dialects; otherwise to have different primers for slight variations of ordinary Hindi would introduce a dangerous innovation as it would tend to introduce variations in the written languages also and further to stereotype them by making them permanent instead of gradually obliterating such slight variations as should be our real object. In this respect we have the forcible example of England herself: we know that different counties and shires have got their special dialects such as Dorset-shire dialect, Cornish dialect and so on; Welsh, Scotch and Irish dialects differ still more widely. Though the spoken language has thus got endless variations, specially among the common people, no Englishman would dream of introducing corresponding endless variations in the written languages also, except in

novels for the purpose of lending local colour. Thus my definite opinion is that, except in the case of communities with entirely distinct languages such as Maharashtra, Telegu, etc., who would require their own primers, the primers for the Hindi-speaking population should be in Hindi but that of the simplest type. All these remarks are obviously directed towards the best means of meeting the needs of the Hindoo part of the population who form a great majority in these provinces; the Mahomedans will require separate treatment on which I cannot pretend to write with any voice at all.¹

(ii) Now as regards the subject-matters of the readers—they should treat of things the villagers can understand and appreciate directly—specially theoretical side of those very things which the village boys will be doing with their own hands in the schools—agriculture, crops, cotton, spinning, weaving, etc., together with graphic descriptions of the different parts of these provinces, well known local legends such as those of Rani Durgavati and specially those which are dear to every Hindoo heart—stories from Ramayan, Mahavarat, Vishnoo Puran, etc., such as Dhruva Charit, Prahlad Charit and others of the same sort. Another most important topic which should be simply but systematically developed in these primers is Hygiene, suitable treatment in the case of different illnesses, epidemics and how to meet them. From the above brief narration it will be seen that there is no paucity of subjects; systematically classified, they would be seen to come under the following heads—(1) general and moral precepts; (2) simple description of natural phenomena such as alteration of day and night, clouds, rains, seasons, dependence

¹ The above observations apply specially to the Central Provinces for which this article, as said before, was primarily written; with slight modifications adapted to local needs, the article as a whole applies to any other Indian province. The case of Bengal is much simpler, as Urdu being practically non-existent in Bengal, Bengali will be the only language which will require looking after; of course if there is a demand for Urdu primers also from the indigenous Mahomedan population (who form nearly fifty per cent. of the population), these also will have to be arranged for.

of crops on seasons, etc.; (3) geographical—graphic description of different parts of these provinces, the world in brief outline, including that of England in somewhat greater detail and description of different races; (4) historical stories such as those of Durgavati and suitable ones from Rajasthan; (5) stories from sacred books; (6) technical such as agriculture, spinning, weaving, hygiene, medicine and epidemiology—all these of course treated in as elementary and simple a fashion as to make the ideas clear to the boys. The great point is that the treatment of any subject should be graphic and interesting enough to arouse attraction in the boys and arrest their attention. Their arithmetic should be such as to suit their particular wants—simple notation, numeration, addition, subtraction, multiplication and division adapted to such buying and selling transactions as happen in villages, together with chapters on interest and land measurements. I shall not pause on this point further as those engaged in village school work or their inspection will have better first hand knowledge of such matters. If the literary curriculum sketched above is regarded as too heavy for the students of village, it should be suitably cut down.

To sum up now my views regarding the village schools:

(i) Along with reading, writing, arithmetic and geography, boys should also devote a fair proportion of their school time to agriculture, spinning and weaving and those who wish, to carpentry and smithy work also. These extra subjects may detract from their book scholarship a little, but will make them, on the whole, more efficient in the life they are expected to lead in the villages when they grow up to be men. They will also go on earning as they study and all these taken together are expected to ensure an amount of confidence in new types of village schools which the old type failed to secure. If the utility of such a combined type of literary and industrial school is admitted, it should not be difficult for experts to settle details regarding the time the boys are expected to come to the school portions of time they are expected to

devote to literary subjects and to the industrial ones and when they should leave the school, etc., etc.

(ii) Barring the initial expense of erecting huts, the weaver and carpenter are not expected to cost anything by way of current expense as they are expected to live on the combined patronage of the four villages taken as the unit in our scheme. If the villages are enterprising enough, they may add other branches also to the school in the same way. The case of the school master who will look after the literary studies and agricultural work of the boys and exercise general supervision over the other branches, stands on a different footing and it will be for the department to see what ought to be the fair remuneration for such a man. Some provision will be obtained from the two acres of land which will be allotted for his personal use ; if this is considered insufficient, it may be increased to three acres deducting one acre from the share of the boys. Postal work is not very onerous in villages ; if the village school-master is also the postmaster he will get some remuneration from the postal department also. Any further amount that may be needed to keep the school master and his family above want, will have to be found and guaranteed by the Education Department.

I had long thought over the problem of village schools in India as the establishment of a village school in my own native village had been one of my long-cherished desires and the above sums up the conclusions I had come to on the subject sometime previously, long before the question of the revision of curriculum in these provinces took shape. On some of the points, I must acknowledge gratefully, my ideas have been considerably clarified by the writings of Captain Petavel, R.E. (Retired), who has long led an agitation on school reform both in England and in India, on the lines I myself had thought over previously, and who is at present the organiser of a polytechnic institution in

Calcutta, where he is trying to show how his ideas can be given a practical shape. Captain Petavel seems to have got his cue from the American institutions where so many students earn their subsistence while carrying on their studies at the same time. He carries the idea deeper and urges that in these days of industrial and agricultural activity each educational institution should undertake on its own behalf some industry or farming business which will defray a great portion of its expenses, even if it does not make the institution entirely self-supporting and as soon as a boy is old enough, he should alternate his literary studies with help in the industry or farming carried on by his institution, either by active participation or by supervision of labour and should thus begin earning even when studying and that this alternation of studies with profitable manual work, instead of detracting his value as a student will make him all the more zealous, while I am somewhat doubtful of the practical possibility of this portion of Captain Petavel's idea so far as they relate to secondary schools and colleges in India at their present stage, I think his idea is an eminently practical one so far as village schools are concerned. By the application of his idea, along with the literary studies the village boys will be grounded in hereditary and essentially necessary pursuits like agriculture, spinning and weaving from their very early stage and at the same time, good will of the whole population would be secured without any difficulty whatsoever. If it is feared that the scheme outlined above is too ambitious for a group of four villages which I have taken as the unit in my scheme, the unit may be expanded to include six or eight villages but that the scheme is a fully practical one and that a moderate amount of sympathy and trouble taken over it will make it a success, I have no doubt whatever.

MIR, THE LYRIC-WRITER OF HINDOSTAN

(*A Biographical Sketch*)

Why should not Mir be prized ?
Of the ancients but he is left.

Mir in this *maqta* or name-line at the conclusion of a *ghazal* (love-poem) declares himself one with the past, and imbued with the spirit of the masters of the classical poetry of Persia, and ultimately Arabia. His spirit is only new in that he was of the first to adopt Urdu for literary expression, and cast it in the mould of the poetic forms borrowed in the Mughal age from Persia. That he was the only or the last survivor of the old masters is not true, for he had contemporaries and successors of like ideals and of fine quality ; but he is chief of the writers of lyrics in Hindostan, and nearest of them therefore to Hafiz, the Persian, and Mutanabbi, the Arab, who have been called the greatest lyric-writers of the East.

Mir Muhammad Taqi "Mir," was born in Akbarabad between 1125 and 1130 (c. 1715 A.D.). Owing to the early death of his father, he removed to Delhi to the care and tutelage of Khan-i Arzu, who is apparently erroneously called by Mir Hasan his paternal uncle, as the relationship seems to have been not one of blood at all, Mir's father having married a sister of Khan-i Arzu after the death of his first wife, the mother of our poet. Mir could not well have had a more talented tutor, for Khan-i Arzu was an accomplished composer in Persian, and not without taste for verification in Urdu. His early efforts were thus well-disciplined and encouraged, but the connection so propitiously started ended all too soon. The master professed the religious views of Abu Hanifa, one of the four orthodox Imams or doctors of the law

of Islam, while Mir was a Shiah, and naturally sensitive besides, even to testiness. There came a rupture, and evidently enduring separation.

Mir "Soz," it would seem, had also assumed the pen-name of "Mir," but discarded it in favour of "Soz" when he found Mir Taqi was achieving celebrity under it. That our poet was a "Syed," as the first portion of his name and presumably his pen-name would indicate, has been disputed. The evidence against is not well-founded, and Azad has sought to settle the matter in Mir's favour by quoting the poet's own lines :

Mir is brought low, with none to enquire of him ;

His love-verses have ruined the Syeds' name.

These lines also shed a light on the attitude observed towards poets. Talent never failed of an audience ; of many another it might be said as of Mir that "travellers carried his love-verses as presents from town to town." "Urdu literature has been kindly fostered by saints since its inception," writes M. Habibur Rahman Shirwani ; "Mir Taqi," "Mir" and Mir Hasan both witnessed to the fact that Wali of the Deccan ("the first classic in Urdu," according to Mir Hasan) presented himself on his arrival in Delhi before the revered Shah Gulshan and was well received, and was counselled by him to render into Urdu the brilliant subjects treated of in Persian. Mir Hasan's own words are : 'Wali...having come from Gujerat, in Alamgir's time, to Hindostan of Paradise-semblance, and gained unto himself advantage from waiting on Shah Gulshan of saintly memory, became accepted of high and low by virtue of his patriarchal favour.' Men of culture and men of affairs have devoted their attention to versifying, for pleasing entertainment, or seriously esteeming it a branch of literature. But certain unfortunate traits have alienated devout minds by

reason of a sensuous imagery lenient to wantonness and an unctuous content with a fictitious world of the imagination. The pure gold of the poet's eternal theme of love has so often been turned by him to dross; his verses are made a stigma, readily and ungenerously affixed to all his tribe. The poet in his turn retaliated on the "unco guid"; for instance Mir says :

The moralist wots not what joy the tavern holds,
Else at a draught he'd cast his sanctimonious turban.

For the proper understanding of such a line it must be remembered that before the advent of the prophet wine was a customary beverage of the Arabs, and notwithstanding its prohibition the Muhammadan ruling dynasty in Damascus was generally addicted to its use. The Caliph Walid bin Yezid, for example, was a typical roysterer, and his wine-songs among his other effusions in verse had not a little celebrity :

Carking care with glee from thee sever,
And time beguile with the vine's daughter ;

And welcome a life of ample ease,
Nor heed the effects to follow after ;

With a brew that age has mellowed,
Old vintage one mounts on one's crupper ;

It has in it no content of sparks, yet
Is liquid gold when mixed with water ;

You'd think a firebrand placed in its glass,
It glows intense in the eye of the beholder.

The same lines are found in a longer wine-song of Abu Nuwas, the boon-companion and court-jester of Haroun Alraschid, and are said to have been plagiarised by him.

To Walid bin Yezid the following are also attributed :

Ruddy when mixed, like a rose in the cup,
It creeps through the bones at quaffing ;

Held up to the light its motes you may see,
One frowns in the glass if they be wanting.

Later, when Sufism (mysticism) gained ground and spread it utilised as its medium of expression terms and modes in current use, superimposing on them its own ideas, thus making what might be styled a "figurative palimpsest." For instance in the Arabic *Divan* of Sulaiman bin Ali at-Tilimsani, (d. 690, i.e. 1291 A.D.), a Sufi poet, there are lines whose normal appeal would be to the senses, but the key to whose interpretation is love (the passion of the spirit in man for the essentially absolute) symbolised in wine :

Are these suns, pray tell me, Companion,
That shine in the temple, or cup and flagon ?

Whenever the wine its light reveals
The priests bow low in prostration.

It is fire, and had it ne'er been mixed with water,
Zoroastrians had given it sole adoration.

It manifests itself like bride in her array,
It is not wedded mate, but a boon companion.

And wine itself is of such long antiquity
When yet was no vine, or planting for potion.

It was chronicled while time was in its infancy,
Before pages for records had their creation.

Men call it a "spirit," but it is "spirit,"
And souls are revived it breathes on.

And again :

Passion has mastered me,—why go censuring?—
And forbidden me hear thy forbidding and bidding ;

And strong desire,—hence Beauty's eyes with swords
Have shed my blood in red tears of my weeping.

And the heart longs for the song of the friends,
As birds long to their nest in the evening.

Adversity and poverty continually followed Mir. He was a welcome figure in the poetic assemblies at Shah Alam's court, but the royal exchequer was too bare to permit of a poet's retention. And a yet greater assailing calamity was a superiority that vaunted itself above his fellows, and replaced easy intercourse with an aloofness that removed him from the means of a livelihood, and led to his making a virtue of want. At length he could parry with necessity no longer, and left Delhi in 1190 (c. 1776 A.D.) at an age when men are not often required to set out in search of a living, for he numbered not less than sixty years. These lines possibly represent his interpretation of the situation :

Craftsmen are abased, and I am of their number,
And skill in any art is held in one a defect.

He turned towards Lucknow, which at this time held out greater hopes to aspirants for name and fame. Ghalib, writing in 1860, when the dire effects of the Mutiny were still comparatively fresh, says : " What can one say of Lucknow ? It was the Baghdad of Hindostan. It was in very truth an enriching administration ! One reached it penniless and grew affluent. But that garden is now in the fall of the year..." An incident that fell out on the way is illustrative of his sullen taciturnity begotten of his nature and his sad experience.

From want of means he had to share a conveyance with another traveller. The latter would have opened a conversation, but Mir averted his face and sat silent. Later he tried again, but Mir said with a frown: "Good sir, you have hired the carriage,—by all means sit in it, but there's no occasion for speech." His companion asked: "Sir, what harm would there be in it? While we are getting on the way it would relieve the tedium." Mir becoming annoyed curtly replied: "Get on with its enjoyment yourself then,—it is bad for my tongue!"

He alighted at a *serai* (an inn of sorts) in Lucknow. On learning that a *Mushaarah* had been announced for that very day he wrote out a *ghazal* and betook himself to the place. The quaint fashion of his array is memorable: a turban with frontal opening, a robe of fifty yards' width, a bale of *Pistaulia* cloth fastened from his waist, an embroidered panel folded and likewise hung from the waist, pyjama of mercerised silk, with loose, wide ends; shoes whose upturned tip was a cubit-and-a-half in length; a staff in his hand; on his one side a straight sword, on the other a dagger. Seeing a habit of so old date, and an unimpressive form of medium height and spare, the assembled youths of the more fashionable Lucknow fell a-laughing. Mir, a stranger and in distressed circumstances, felt his position yet more galling, and chose a place apart. When the reader's candle reached his place in the circle, he again became the cynosure of all eyes. They asked him whence he came, and in answer he delivered himself impromptu of this *qatak* (fragment), composed in the measure and end-rhyme prescribed for the compositions to be declaimed on the occasion:

Ask ye of my state, men of the eastern city,
Deeming me stranger, and object of laughter meet?

Delhi once elect city throughout the world,
Where dwelt in each age the age's elite,

The sky looted it and laid it desolate,—
There is my dwelling in its forlorn street.

His connection with Delhi as stamping him with the hall-mark of cultured Urdu, and his gift for composition, constituted a double claim to recognition, and his forgiveness was besought, and by morning it was noised abroad throughout Lucknow that Mir was in their midst. In time the news reached Nawwab Asifud-Daula, Governor of Oudh, and himself the author of a Diwan in Persian and Urdu, who conferred on him an allowance of two hundred rupees a month.

The Nawwab was not an exacting patron; he appears to have let Mir's inspiration dictate the occasion of a composition. Such a connection involving so light a claim could not in itself have proved irksome, but Mir's pride had accompanied him from Delhi, and could not brook the slight in the following occurrence. Asifud-Daula once sent for him. When he arrived he saw the Nawwab amusing himself with a cane which he kept thrusting into a tank containing some reddish fish. He was pleased to see Mir, and asked him to recite something. Mir began to read a *ghazal*. The Nawwab as he listened continued to entertain himself with the cane and the fish. A frown crept over Mir's face. He paused after each line when the Nawwab would say: "Yes, please go on!" At length after four lines Mir stopped and said: "How can I read while you are playing with the fish? If your Majesty attends I will read my poetry." The Nawwab replied: "What is poetry will of itself make me attentive." Mir now yet more displeased put away his *ghazal* and left, and did not again return. Some days later the Nawwab saw him from his conveyance in the bazaar, and greeted him very cordially: "Mir Sahib, you have quite neglected me, and never visit me!" Mir answered: "Gentlemen are not wont to hold conversation in the bazaar; this is no place for such." He did not, however,

take advantage of the opportunity of the renewal of relations, and preferred the meagreness of his own life apart.

A certain Nawwab in Lucknow pitying Mir's straits provided for him and his family a fairly commodious house, the windows of whose sitting-room looked out on a garden. On the day he entered the windows happened to be closed. They remained unopened, and several years after some friends who had called asked why he did not open the windows and sit by them. "What," remarked Mir, "is there a garden here too?" They replied: "The Nawwab brought you here for this that your heart might be cheered and brightened." Pointing to the old and frayed drafts of his *ghazals* lying near he said: "I have been so engrossed in this garden that I was unaware of the outer garden." Then he relapsed into silence. Mir's work, however, is probably less exposed than of his fellow-poets to the criticism that it is remote from Nature.

Hali has recorded on the strength of a verbal statement of Ghalib an expression of Mir's opinion on Ghalib's early verses, some of which had been read to him by friends. The incident must have taken place towards the end of Mir's life, for Ghalib was born in 1212 and the date of the death of the latter was 1225 A. H. On hearing these juvenile verses he expressed himself thus: "If this lad could get an accomplished master, who would direct him aright, he would become a peerless poet; otherwise he will but utter nonsense."

Baqaullah Khan "Baqā," believing Mir guilty of a plagiarism from himself in his employing the figure of a *doaba* (two streams enclosing territory, or such "Mesopotamia" itself) for weeping eyes, was unsparing of bitter innuendoes. One such instance is:

Mir, what could well be better than this,

—If but it could make a poet's name,

To wander through every highway and byeway,

And "Ho, the works of a poet!" loudly proclaim?

Godlyman's penitence is a din unholy,
His vigils devout a scheming game.
Now up, and mind your manners, Mir,
No hamlet this, but Delhi of wide fame !

. Mir's style was peculiarly adapted to the *ghazal*. He had not the grand manner in diction suitable for the *qasida*, nor a nature sufficiently open to eulogise. Of set purpose he chose simple language for the expression of his ideas, and dissatisfaction with the world, or self-satisfaction, withheld him from writing much panegyric. The following are a few specimen lines from his *ghazals* :

My winsome Sweet, what wondrous grace,
My heart is won by thy fairy grace !

By a single glance I am bewitched,
What marvel is this Bandit's grace !

Hearts are lost to my Love's gait,
Such, you see, my Idol's grace !

From woe and grief my mind is downcast,
Like limned bird my lips keep silence.

In my eyes You stayed, and my heart left not,
I marvel that You dared such bold offence.

Since my Love appeared with decked out charms,
Despair is wakened in me from such radiance.

For woe my days are near expiring,
So sore the wound my heart is bearing.

Of letters entreating I've penned volumes,
The matter is gone thus far through longing.

That figure tall my soul enthralls,
My desire hath been my undoing.

The plight of my heart's a sight to see,
Its edifice is ruined by grieving.

Those rosy lips to style as rubies
Is a fiction of the poet's imagining.

So near my heart, and withal so far,
—My Love is coyly none befriending.

The uncolumned sky and Farhad's labours
Hold no marvel,—all is love's doing.

Behold me lorn, abased to the dust,
—My Love still in ostentation priding.

The lover undying is submitted to death,
At separation, its passion I'm enduring.

It cannot be my heart's unrest will give me peace,
Till from my eyelids burst grief's swollen tears.

Envied of the rose, try not the garden so,
How can the flower compare with Thee?

An Thou ope Thy mouth, the bud in envy rends its calyx,
An Thou move Thy lips, the rose is put to shame.

If but that Beauty come with *burqa* raised,
God's power will be resplendent mirrored.

This poltroon sky, what power hath it
To long withstand my loud lamenting?

The head proud here to-day of kingship,
To-morrow eke will be for it loud wailing.

The Peri's cheek is shamed before Thy face,
Nor grace of partridge can vie with Thee.

None is passed safe beyond this world's bourne,
But every farer's effects been looted on the way.

This wound in my heart against Thy injustice
Will sue for redress from Resurrection's Judge.

Yesterday I took my way beside the sea,
It begged tears of my eyelashes' fringe.

He was a prolific versifier; his *Kulliyat* (Collected Poems) contains besides other poems six *Dicans*, each of considerable compass. Naturally so extensive a production is not of equal merit throughout. He himself made a selection, and to this one turns first for judgment, as from it the truest conclusion is likely to be drawn. Hali rightly expresses himself when he says in dealing with Ghalib: "It must be remembered that the rank of a poet and his work is not adjudged from the quantity of his verses, but from the quality of a selection from them. People do not appreciate Mir for the fact that he left numerous thick *Dicans*, but from his selection, which is exceedingly small numerically, and which made him supreme among all Urdu-writing poets." Our poet's own predilections in the choice he made have not, as is to be expected, commended themselves universally; Mir Hasan for instance is of those who think that it does not contain all the cream of his work. His high opinion of Mir's capability in the diverse poetic forms holds good, and there is general agreement with his verdict that his popularity was due to his skill in the *ghazal*, "which flows abundant, and with grace and beauty" from his pen, and with this other expressed with the floridness that marked his style: "His poetry is like a lustrous pearl, and its graces incalculable."

Mir passed away in 1225 (1810 A. D.), in the concluding days of his five-score years. "Nasikh" has preserved the date in his chronogram : Woe, for the King of poets is dead !

No more striking tribute could be paid him than that by Ghalib :

Ghalib, of Urdu you are not sole master,
'Tis said once there was a certain Mir.

Self-depreciation was not a characteristic of Mir's, as is further borne out by his lines :

A world hangs on my lips eagerly,
A world will mourn for me deeply.
They will read my verses with tears,
And lament my loss lastingly.
If back to the dust man do not return,
Why grows my figure bent so feebly ?
Heaven and earth I have set in commotion,
Resurrection stirs them less tumultuously.
The loved one's tresses you saw dishevelled, Mir,
That your heart's in a quiver inordinately.

A. H. HARLEY

FIFTY-EIGHT YEARS' FIGHT WITH MALARIA

II

In my last article I showed that the fulminant, widespread type of malaria began to rage in Bengal about 1860. This fact is generally—I may say almost invariably now-a-days—lost sight of or ignored ; and we are strongly inclined to think that, that is one of the chief reasons why the campaign against malaria has failed so signally. Physically, Bengal about 1860 was much the same as it had been for good many centuries. Insanitary marshes and jungles which favour malaria abounded then there as before. True, there had been a comparatively recent increase in the number of the marshes of Lower Bengal owing to the deflection of the main course of the Ganges from the Bhágirathi to the Padmá, and the consequent reduction of several rivers fed by the former to a moribund condition. But this important physiographic change had been effected at least a century before 1860. In regard to economic condition, another important factor of disease, Bengal was as prosperous then as ever before : at least, there was no sudden depression in its economic condition, no famine or even scarcity, to account for the sudden outburst of malarial fury about that time. The reeking swamps and luxuriant vegetation of Lower Bengal undoubtedly made it comparatively less salubrious than the drier Upper Ganges Valley or the Punjab, and aggravated its effects. But if they could have originated it, they would have done so long ago. Its immediate cause, therefore, is to be sought in a new factor which came into existence about the time of the outbreak.

This factor was clearly brought out by the investigations of the Malaria Commission of 1864, especially of Raja Digambar Mitra who was one of its members. Though he had not studied any special branch of science, he was endowed

with strong common sense and a scientific temperament and was, besides, a man of considerable public spirit. Apart from the tours he made with the Commission, he inspected a good portion of the area affected by the malaria epidemic and assiduously collected facts regarding it at his own expense.

It should be premised, that before the close of the last century when the mosquito theory of the origin of malaria was established, miasma or air tainted by noxious emanations from marshes or pools and puddles of rainwater had been almost universally regarded as the cause of malarial fever. In the words of a distinguished medical authority, it had been ascribed to "an earth-born poison, generated in soils, the energies of which are not expended in the growth and sustenance of healthy vegetation." As the malaria-carrying mosquitoes breed in ill-drained, swampy localities, the truth of this old idea, so far as the prevention of malaria is concerned, is not seriously affected by the mosquito theory. As Sir Ronald Ross pertinently observes: "The ancients were quite right—the disease *is* caused by an emanation from the marsh. That emanation, however, is not a gas, nor even a *contagium virum*, but an insect."

The Malaria Commission of 1861 governed by the then prevalent idea of the paludal origin of Malaria observed: "Our first object must be to reduce, as much as possible, the generation of miasma, or malarious exhalations rising principally from moisture in the soil during the drying process after the rains, and any means by which this drying process can be accelerated and shortened will produce a *pro tanto* diminishing effect on the total amount of miasma generated. To effect this object the obvious course is to improve the drainage of the country obstructed by the silting up of rivers and *khas* and the general assimilation of levels which has gradually taken place of late years. Remembering that the direction of the

natural drainage of the villages situated along the river banks is inland, we have no difficulty in believing that it is impeded by the railway embankments on both sides.....With a view to improve the internal drainage of the villages, we would strongly recommend the construction of open water-ways to carry off the surface water directly to any neighbouring river, *khal*, or *beel* that may be available, or failing such to some one or more low pools or tanks outside the village." We are fully persuaded, that if this wise recommendation had been acted upon, the virulent type of malaria from which Bengal has suffered since 1860 would have disappeared long ago.

Raja Digambar Mitra in a separate statement appended to the report of the Commission and in a memorandum submitted to Government in 1876, showed from a large number of facts¹ collected by him more forcibly than the Commission that the immediate cause of the widespread malignant type of malaria which began to prevail about 1860 was the obstruction to drainage caused by embankments of roads and Railways which began to be constructed vigorously about that time,² and that the silting up of rivers and *khals* referred to in the report of the Commission had but little to do with it.

As I have shown in my work on "Survival of Hindu Civilization, part II," the conclusion arrived at by Raja Digambar Mitra has been confirmed by various observers

¹ Some of these facts have been quoted in the writer's work on "Survival of Hindu Civilization, pt II—Physical Degeneration, its causes and Remedies," pp. 107-108.

² The first Railway in India, that from Howrah to Raniganj, was opened for traffic in 1855. Since then the construction of Railways and along with them that of raised roads has been proceeding at an accelerated pace. In pre-British times there were but few made roads in India. Probably the only conspicuous instance of such a road in Bengal was one extending a thousand miles from Jagannath to Delhi. It was, however, embanked only over low ground, and was not metalled at all. The roads were almost exclusively fair-weather trucks which did not offer any obstruction to rain or flood water. Traffic was carried on by boats or by carts and pack-animals during fair weather. When Lord Elphinstone proposed to construct roads, the idea appeared so ridiculous to some high British officials, that one of them wrote home to England, "the silly young noble-man actually talks of making roads."

in Bengal and elsewhere—in fact, the fulminant type of malaria has followed the Railway with such precision and regularity in alluvial tracts, that one might safely predict its prevalence there whenever the construction of any new Railway is undertaken. One is strongly inclined to suspect that the synchronism of malignant malaria and the construction of high roads and Railways noticed by various observers during two generations in different parts of India cannot be due to mere chance coincidence, and that there is some intimate connection between them. And a little reflection will show what that connection may be.

The main Railway systems of Northern India traverse a vast expanse of immensely thick alluvium. A boring at Fort William, Calcutta, was carried down to a depth of 481 feet without reaching its bottom. Several borings were driven in the upper Gangetic alluvium. The deepest of these, that at Lucknow, did not touch hard rock at a depth of 1,336 feet. Even at Umballa, only 20 miles from the base of the Himalayas, a bore-hole was put down to a depth of 701 feet without meeting such rock. It is thus easy to imagine, that the tremendous pressure exerted by the trains on high Railway embankments would convert them into more or less impervious walls down to considerable depths. The effect of such walls would be to impede surface as well as subsoil drainage, to increase humidity,¹ to introduce marshy conditions where as in parts of the North Western Provinces and the Punjab, they did not exist before, or aggravate them where, as in Bengal, they have always been present, and to convert the chains of "borrowpits" by the side of the embankments² into so many breeding grounds of Anophelines. It is true that Railways, chiefly in their own

¹ This humidity may have affected the atmosphere. Unfortunately the Meteorological Department does not possess humidity records old enough to throw light on the subject.

² I may say once for all that the remarks here made about embankments of Railways apply *mutatis mutandis* to those of raised roads and canals.

interests, are provided with waterways; but they are generally insufficient, especially in a delta like that of Bengal. Besides, several of the main lines run more or less parallel to large rivers, and the impervious underground walls of their embankments offer serious obstructions to the lateral percolation of the waters of these rivers, thus introducing or aggravating marshy conditions even in places by the river side which should otherwise be very healthy.

Unfortunately, no experiments appear to have ever been made on a sufficiently large scale to ascertain the truth of these deductions from *a priori* considerations. The only experiment the writer is aware of was one made by Major (now Sir) L. Rogers. At the Malaria Conference held at Simla in 1909, he said that he had taken the ground water levels on each side of the Eastern Bengal State Railway for a distance of twenty five miles. "The highest ground," he observed, "is the bank of the river Hooghly. If the Railway was obstructing the drainage, it is obvious that the water-level would be higher on the river side. But there was no difference between the two sides at all."* Sir L. Rogers did not take into consideration the fact, that it is not the Railway alone, but raised roads also obstruct drainage, and feeder roads radiate in all directions from all Railway stations, so that the level of subsoil water might well be the same on both sides of the railway, but higher than in pre-railway times, thus rendering the area affected less salubrious than in those days. And it is well known what a vast difference the level of subsoil water makes in health. Captains Proctor and Stewart found that villages in the districts of Jessore, Nadiya, and Murshidabad (three of the most malarial districts in Lower Bengal) in which the "ground waterlevel was less than 6 feet, had a spleen rate

* Proceedings of the Imperial Malaria Conference held at Simla in October, 1909, p. 28.

of 75 per cent., and in those with ground waterlevel over 6 feet, the rate was 55 per cent."¹

It should be noted that had the country in Northern India served by railways not been so generally, and so deeply alluvial, the obstruction to drainage and the consequent injury to health would not have been so serious. The impediment to drainage caused by roads and railways in undulating hilly areas is never very great, and they enjoy comparative immunity from malaria, as do also alluvial flats where there is a paucity of roads and railways as in parts of Eastern Bengal.

Confining ourselves to Lower Bengal, the focus whence the fulminant type of malaria radiated to all parts of Northern India along with the extension of railway and feeder roads, we may infer from the generally good health its people enjoyed in pre-railway times, that in the course of centuries they had got adapted to the marshy conditions among which they lived. The river-side being usually the highest ground, towns and villages are situated there. The marshes (*bils* or *jhils*) bordered by water-logged paddy fields are from a mile or more inland. In pre-railway times there were hardly any roads that offered any obstruction to rainwater flowing from the towns and villages to the paddy fields and *bils* and thence into *khals* which ultimately found their way into rivers. The tanks and gardens in and about them were generally kept in good condition by the well-to-do. The Anophelines were too comfortable in their favourite haunts, the *bils* and adjoining paddy fields, to trouble the far off human residents"; and their congeners in the tanks were kept down by fishes. In pre-British times there were no sanitary, medical and engineering

¹ Report of the Drainage Committee. 1907.

² "As a rule gnats, like other animals, tend to remain in the locality where they were born; but a few may occasionally stray to the distance of half a mile or more from their breeding places. If, however, plenty of places where they can obtain food exist near at hand, there is no reason why they should travel further for it. They must also remain near water to lay their eggs in." Ross, "Prevention of Malaria," p. 55.

experts to carry on research and make "discoveries," and no high functionaries to indite minutes, circulars and resolutions about sanitation and allied topics. Consequently, extensive sanitary works such as the drainage system referred to in our last article were expeditiously carried out, and Abul Fazl could make the laconic statement that the anti-malarial measures adopted by Akbar in Bengal had been crowned with success.

With the construction of railway and feeder roads in the late fifties of the last century, the hygienic conditions underwent a great change for the worse. Damp heat which had always characterised the climate of Bengal is enervating. With increased humidity due to impeded drainage it became more enervating, and consequently the disease-resisting capacity of the constitution was reduced. The number of shallow, stagnant, noisome pools and puddles of rainwater, the breeding grounds of Anophelines, was vastly increased, and what is worse, they were brought nearer the homes of the villagers and townspeople when the railway passed close to them, or otherwise, by the raised feeder roads which sprang up in every direction. Then again, the increased facilities of communication with Calcutta tempted the well-to-do people to desert their villages. Moreover, their sentiment of benevolence suffered considerable attenuation with the propagation of the modern civilization of the West, or was diverted into such channels as schools and hospitals. Thus tanks became overgrown with weeds and began to get dry, and the fishes in them were not renewed, and gardens were covered with low thick jungle. Pucca houses which rang with merriment on festive occasion fell into disrepair, and often became masses of jungle-clad ruins. Thus many a village were converted into howling wildernesses in which wild animals like boars and leopards found a hospitable refuge.

Unhygienic conditions brought about by obstructed drainage which resulted in local outbreaks of epidemic malaria at Mahammadpur (Jessore) and Kásim Bazar (Murshidabad)

referred to in my last article were repeated with the introduction of railway on an enormously exaggerated scale in parts of the Burdwan and Presidency Divisions of Bengal. The last fifty-eight years' fight with malaria, if fight it can be called, has effected but little mitigation of those conditions, and it is not at all surprising, that it should have met with such ignominious failure.

(To be continued)

PRAMATHANATH ROSE

INDRA LAL ROY, D.F.C., R.A.F.

(A short sketch)

Born in Calcutta, 2nd December 1898,—fell in an air fight, 22nd July 1918, buried in the cemetery at Estevelles, Pas de Calais, France.

Second son of P. L. Roy, Esq., Barrister-at-Law and Zemindar of Lakutia, Barisal, East Bengal.

"These dying have made us rarer gifts than gold."

Four long years have passed away since my Laddie fell fighting for a righteous cause. The freedom to think and work unfettered, the defence of the weak and helpless, security of life, mutual respect, the sanctity of the pledged word, all had been set at naught by the ruthless foe. Force and brutality reigned all around, when this brave boy of mine went out to do battle against the enemy of civilisation and all that enlightened people held most sacred. He fell in an air fight over the village of Estevelles in the Pas de Calais, France, on 22nd July 1918. Death was swift and merciful, for those who saw him fall found that his heroic soul had already passed to realms unknown for when they lifted him out of his machine no sign of life stirred his noble frame. "*Per ardua ad astra*, he had climbed the heights, overcome stern difficulties and had reached the Stars of Promise. Lieutenant Indra Lal Roy had entered the Elysium fields, he had offered his life as a sacrifice for the Peace of the world and it had been accepted. As his spirit floated from earth to the astral plane the echo of his voice reached me across the seas on the night of his death. An invisible force drew me from the sitting room in my flat 67, Fity, George Avenue, Kensington, and led me to a little side gate opening into the grounds of St. Paul's School and left me there. At the same instant there fell

up on my ears the sound of boys' voices singing in unison. "Hip! Hip! Hurrah! Well done!" My Laddie's was the clearest among them. Two days later a wire from the War Office informed me that he was missing but I knew that he



Lieut. Indra Lal Roy, D.F.G., R.A.F.

would never be found and told my friends so. A second wire from the War Office a month later confirmed my words. My beloved son had entered into glory and left me behind a

stricken-down, broken-hearted but proud mother. The sounds I had heard were his parting message to me as he passed from darkness into light.

As one grows in years, the memory seems to dwell on the past and many events, which at the time of happening had no significance, stand out as so many landmarks on the path of life. One of these events was the coming of my Laddie. He came to me on Wednesday, December 2nd, 1898, just when a glorious sun was shedding his brilliant rays over the town of Calcutta. It was mid-day : my room was bathed in sunshine—a tiny little cherub, modelled like a cupid was laid by my side, he had come so gently and so swiftly that his advent did not break the silence of the house, so even at that early date there was the promise of that modesty which endeared him to his comrades in the Air Force. The next day a friend of mine who visited me looking at him admiringly exclaimed "O! what a sweet little Laddie!" From that day every one called him "Laddie" a name which stuck to him for life. So the little fellow grew in beauty and in stature, loved and admired by all. A year and a half later in May, 1900, a younger brother later known as Maffie followed him. In September, 1900, I and my six children, 3 girls and 3 boys, sailed for England because my husband thought it would be better to educate them in that country. I left with a heavy heart—the responsibility of looking after six children alone and in a foreign country weighed heavily upon me, but I was too proud and too independent to acknowledge this feeling of helplessness even to myself. The sea was considerate to us. So we landed in England without having suffered any inconveniences. Kind friends did their best for us and after a few weeks we settled down in a comfortable little villa in Ealing and I arranged for my three girls Leila, Mira and Coocoo and my eldest son Pareesh Lal to attend schools as day pupils. My two baby boys were of course too young to be taught. The maid who had accompanied us to England and was much

attached to them had to return to her husband in India and left us in November. Just before her departure I engaged a so-called lady nurse, who in after years was the cause of much misery and trouble in the family, but this is not an autobiography so I shall not refer to her again. At that period my little Laddie was a delightful little creature, with perfect features and a beautiful body. Long curls adorned his lovely little olive face. His bright black sparkling eyes were lighted up with the fire of intelligent mischief. Our next door neighbour, a dear old lady of seventy, used to call him her "picture boy" and insisted on the nurse taking him to see her every morning. There are memories which never lose their freshness after the lapse of years, which remain embedded in the secret garden of the heart and this period is one of them. A wave of indescribable sadness overwhelms me when I think of these two darling boys who have left me for ever. A longing to be with them, to hear their sweet young voices, to listen to their childish prattle, overwhelms me at times and it is only the hope of meeting them again in some future state of existence that helps me to bear the agony of this pain. Our stay in England was cut short by a summons from my husband to return to India, the reason for this summons was never understood by me. I obeyed it, but not reluctantly, as in my heart of hearts I longed to be back home again. So with my six children and that sinister personage who had acted as lady nurse since our arrival in England, we set sail on our homeward journey. In due course we reached Calcutta and settled down once more in our home at the end of 1901. We stayed in Calcutta with occasional visits to Darjeeling and elsewhere till the spring of 1905 when we decided once more to take the children to England for the sake of their education. However, we returned to India after arranging for the three elder children's education and bringing my youngest girl Coccoo and our two little boys Laddie and Maffie back with us. June, 1906, found me once more in London in

response to a request from my elder girls Leila and Mira who were unhappy at school. My little ones and the nurse accompanied me. This time we settled down in Brookgreen near St. Paul's Schools, which the elder children continued to attend but as day pupils. From this time I devoted myself to teaching my little ones. In January, 1908, after a period of strained toleration, I decided to part with the sinister lady nurse and thus to rid our home of an unpleasant element and a lowering cloud. The two little boys freed from the tyranny of a hard-hearted vixen, now became the constant companions of their elder brother and sisters and we all strove to do our best to amuse them and train them in such a manner that they took a delight in sports of all kinds while their minds were stimulated by stories from the Greek, Roman and Sanskrit classics. Laddie especially delighted in listening to the tales from Homer, Virgil and the Ramayana. Then came the time when it was necessary for them to join a preparatory school; so in September, 1909, I entered them both as day pupils in Colet Court, St. Paul's Preparatory School. Laddie passed out of this school with a junior scholarship into St. Paul's School at the age of thirteen, obtaining a senior scholarship three years later. His career at school was a brilliant one but it is not my intention to enumerate all the prizes he gained during this period. So I shall only mention the Senior Belford Prize for History which was awarded to him in 1917 as he obtained the highest marks in that subject in a competition open to the four highest forms in the school. In the spring of the same year he was elected Captain of Swimming and won the Feather Weight Boxing Competition and there was every expectation of his winning an open scholarship at Oxford and of entering the Indian Civil Service. He had, moreover, an extraordinary capacity for mechanical invention and had from a very early age shown a marked interest in aviation and spent most of his spare time in making models of aeroplanes and endeavouring to invent means for remedying

many of the defects he found in the existing machines. Had he lived, he would have certainly made his name as an inventor but the Great War claimed him and in April, 1917, he decided to go forth. Quickened by a sense of menace to all things pure and beautiful he volunteered his services to engage the foe when he was but 18 years old. Though at first rejected he persisted in his efforts until he was accepted. The same industry and perseverance he put into his school work he now displayed in the Officer's Training Corps and took first place in nearly all his examinations. He was appointed as a



Lieut. Indra Lal Roy
Officer on leave, May, 1918

Scout Airman in October, 1917, and went out to France to join Squadron 56 R.A.F. in which he had as comrades J. B. Mac Cudden and R. Balcombe Brown, two most famous airmen. He did fine service till December, 1917, when he was incapacitated at the first battle of Cambrai and none of us thought he would ever be able to fly again but as soon as he felt himself

strong enough he moved heaven and earth to have the veto removed and after being gazetted as Lieutenant he joined No. 40 Squadron in June, 1918, and was given one of the newest and swiftest machines then in existence. About this



Lieut. Indra Lal Roy, D.F.C., in uniform, 1917.

aeroplane he wrote to me on 22nd June, 1918, "I have got a topping machine, and I think I'll do well on it and he did uncommonly well on it for to his credit stands the noble record that during the thirteen days from 6th July 1918, to 18th July, he accounted for no less than nine

enemy aeroplanes. For this achievement he was awarded the Distinguished Flying Cross. He was the first Indian to receive this distinction. On Wednesday 19th, July he made the supreme sacrifice for he fell in an air fight over Estevelles, Pas de Calais, France, and was picked up by some French peasant of the name of Adolphe who having obtained permission from the Germans buried him in the little cemetery at Estevelles after enclosing his remains in a small wooden coffin.



The Grave of Lieut. India Lal Roy
in the Cemetery at Estevelles (France)

A wooden cross bearing his name and date of death marks the spot where he lies. His youngest brother Maffie and I paid a visit to his grave on Easter Wednesday, 1920. His great friend and school fellow, John Woods, accompanied us. As we three stood around it an intense longing to behold once more the face of him, who was so dear to all of us came over us and our hearts were torn asunder with grief and pain at the thought that he had passed away for ever from our mortal vision. Little did we then think that before the year was out, his brother would join him in the land of mystery and peace. It is impossible in a short sketch like this to do him justice but the following letters which I received from his superior

officers and comrades will prove how much he was loved, respected and appreciated by all who knew him—

FROM

MAJOR ALEX KEANE,

Officer Commanding,

40 Squadron, R.A.F.

Dated, 27th July, 1918.

DEAR MRS. ROY.

I am writing to tell you all I can about your son being missing. He went upon a patrol with three other fellows and they met four German aeroplanes, two German machines were seen to fall and one of our own which was the machine your son was flying. From the time your son came to the Squadron his one aim in life was to shoot down Huns and through his skill as a pilot and a wonderful dash he succeeded in bringing down nine enemy machines. For the time he was here that is a wonderfully fine record. I am sure he was very happy here, he was admired by all the men and officers in the Squadron and was very popular in the mess. I have every reason to believe that he will be rewarded for the brave deeds that he has done. The whole Squadron join with me in sending their sincerest sympathy to you in your great loss.

Yours sincerely,

ALEX KEANE,

Major,

(i.e., 40 Squadron.

FROM

THE REV. BERNARD W. KEYMER, C.F.,

Padre of his Brigade.

Dated, 28th July. 1918.

DEAR MRS. ROY,

I feel I knew your son so well when as Padre of his Brigade, I stayed with 40 Squadron, I must send you a line to tell you how deeply I sympathise with you in your sorrow. He was such a really good fellow

and has done so brilliantly that the Squadron will miss him tremendously. I know you will like at least to hear how very greatly the Squadron loved and respected him.

Yours sincerely,

(REV.) BERNARD W. KEYMYR, C.F.

FROM

SEC. LT. RONALD H. BRUCE, R.A.F.

DEAR MRS. ROY,

I am writing just a short note to try to explain just the sort of real hero your son was. I was in the same Squadron (40) and I had the great pleasure and honour to be your son's friend and admirer for the short time I knew him. I really don't know why I am writing; but a few days before he went missing, he asked me into his hut and gave me your London address and just gave me a queer look and I really think he intended me to write and console if anything happened. You must have been told officially by now that he was one of the coming pilots in the Royal Air Force but I don't think that anything official could possibly do him the justice that he richly deserved. He was just wonderful. He wasn't a fierce fighter by any means, he was really the reverse, he simply fought with amazing courage and half his thoughts were for the enemy pilot I am sure. He was often quite upset when he realised the damage he had done. His greatest quality was modesty. He was wonderfully modest and often when I told him what a wonder he was, as I often did from the bottom of my heart, he used to simply scorn the idea and try to impress me that he was nothing of the kind. I knew that his ambition was to be decorated as I used to see him get slightly excited when I once mentioned that I had heard of news in that direction and I know that the next few days would have seen him using his own words "the happiest of men." Unless he has been by now officially reported passed I should always live in hope of his returning as no one knows exactly what happened to his machine in the last few hundred feet and there was every chance of his regaining control and landing. If you ever did hear to his being a prisoner I would be awfully much obliged if you would drop me a line with his address. I should love to correspond and see him again for of all the

boys I have ever met up till now, he stands alone for pureness, nobleness, courage and most of all modesty. I do wish Mrs. Roy I could only explain what I (and the whole Squadron) really thought of him but that using the English language is impossible. Well, Mrs. Roy, I must close now sympathising again and again with you. I remain,

Ever your son's worshipper

RONALD R. H. BRUCE,

Sec. Lt. R. A. F.

This little sketch would not be complete if I did not add a few lines about his two brothers Poresb Lal (Googoo) and his youngest brother Lolit Kumar (Maffie) as they were all three bound together by the greatest chords of love and affection. Poresb Lal, the eldest of them, left Emmanuel College, Cambridge, in December, 1914, to enlist as a private in the Honourable Artillery Company and went out to the Western Front in April, 1915. Being an Indian he was not granted a commission then, so he fought in the ranks till August, 1918, when he obtained permission to exchange into the R. A. F. and was promised a commission if he was found competent after his training, but the Armistice was declared in November, before he had completed his course and he is now an Assistant Traffic Superintendent in the Eastern Bengal Railway; a poor reward for having sacrificed the best years of his life to the service of the Empire and undergone the greatest privations and sufferings both bodily and mentally. Indra Lal loved and venerated this elder brother and his last thoughts were of him for he wrote to me as late as July 21st, 1918, only the day before he was killed, "I am so glad Googoo is going to get one (*i.e.*, a commission) at last. I should start at once trying to get him out to India with the R. A. F. as I think he has easily done his share of fighting." On 18th, July he wrote: "I see that the Sandhurst Stunt is granted. Hurrah for Maffie, I am so glad!" In the same letter he writes to me, "I

worry about it all a lot though you mightn't think so. Please dont worry too much though for my sake, your ever loving son, Laddie." All this proves how much we were all in the dear boy's thoughts even to the last.



*Poresh Lal Roy, B.A., Fought in France, 1915-1918,
with the H.A.C.*

Lolit Kumar (Maffie) was my youngest son, there was only a difference of 17 months in the ages of the two brothers,

they were almost like twins and were constant companions and much attached to each other. They shared all their joys and sorrows and during Laddie's last leave they were never parted. Laddie insisted on his being with him night and



Indra Kumar Roy, Gentleman Cadet (1918-20)
Royal Military College, Sandhurst

day up to the very last moment of his departure for France and the two brothers bade each other goodbye at 7 A.M. on the 19th of June, 1918, on the platform of Victoria Station,

London. The same year in July, Maffie entered Emmanuel College, Cambridge, as a medical student and joined the University Corps but he left Cambridge for the Military College, Sandhurst, in the following January having received a nomination from the India Office. He did well in all his examinations and finished his course in October, 1920, and would have obtained his commission in December but he met with an accident at Rugger in November, blood-poisoning set in and in spite of all that human skill could do, for he died on 1st December, 1920, in London which was really the birthday of Laddie allowing for the difference of time between London and Calcutta. His last thoughts were of his brother as he referred to him continually during the last days of his life. He is buried in the grounds of the Military College, Camberley, as the authorities gave him a military funeral.

I might fill volumes with the reminiscences of these two dear boys but I have confined myself to only recording those events which will be of interest to my countrymen and women. At some future date I may publish the larger volume which is still unfinished.

LOLITA DEVI

MITES FROM MANY—III

I. MY MIND

My Mind, my Queen, my Best that's known,
 Be merciful to me ;
 Use me not in useless ways,
 Let truth between us be.
 Thou paintest life in rainbow hues,
 One's pleasures, other's pain,
 Unnumbered-fac'd thou makest life,
 For each his end to gain.
 All—all thou bindest with thy chain,
 Be't iron or be gold,
 One man-clay thou countless makest
 By wond'rous magic mould.
 Of God's all ministers thou the chief
 To bind or set men free,
 O be thou out and in His love
 To grant His liberty !—*Modern.*

II. MOODS OF MIND

(*Life and Death*)

(1)

My life, alas ! has run to waste.
 By the world deceived :
 And for my priceless wishing gem
 The price of paste received.—*Sihlana.*

(2)

Water leaps from Fountain's lap
 To pick star-flowers,
 Earthward falls, hopeless, foil'd,
 In loud tear-showers.—*Dwijendra Nath Tagore.*

(3)

Thus Hope and Strife
 Encompass life.—*Modern.*

(4)

But a little cry, say what is life,
 Babbling, prattling, senseless smile,
 A little love 'midst ceaseless strife,
 A little truth, devour'd by guile?
 My soul, thy lonely watch but mount
 O'er shining Hope's sweet, secret fount. *Modern.*

(5)

Shrunk are thy limbs,
 Bleach'd are thy locks,
 Toothless thy head,
 Thy hand-stick rocks,
 And yet the lust of life thee mocks. *Sankarāchārya.*

(6)

O Lust of life,
 Thou faithful wife,
 Life fades apace

And thy embrace
 Yet closer grows
 'Midst dying throes.—*Anonymous (Sans.)*

(7)

When soul, the most lov'd of all belov'd,
 Away by death is borne,
 What recks it if on throne or muck
 The flesh of life is shorn?—*Saudi.*

(8)

Death claims her victims day and day,
 The rest forget her victims they ;
 They mourn a dead or dying friend
 (What wonder more !) so near their end.—*Anonymous*
(*Sans.*)

(9)

Nor mercy nor love is there,
 In that thy mirror'd face
 Thy hungry eyes would clean devour.
 Put on thy coat, fix fine the lace,
 Anoint thy love-locks' every hair ;
 But mind that day of close embrace
 On couch of death—the roaring pyre—
 By flesh-devouring, foul-breath'd fire.—*Hindi Song.*

(10)

Seek not what goes,
 Care not what comes,
 Fear not what is,
 —This dispassion sums.—*Panchajani.*

III. MOODS OF MIND

(Other Moods)

(1)

Evil breeds in evil heart

Even in hermitage ;

Lowly heart is piety pure,

A blameless life the sage.—*Sihlana*.

(2)

Whose mind's serene 'midst passion's rage

He alone is truly sage.—*Kalidāsa*.

(3)

What's faith that breeds not mercy,

What's devotion but "serve and love,"

What's piety but none to hurt,

What's learning but peace—below, above ?—*Sihlana*.

(4)

'Tis meet to fear that alone

Which has power to hurt another one.—*Dante*.

(5)

If me reviling pleases one,

—A costless favour I bestow.

The good, for others' good, away

Hard-earned fortunes throw.—*Sihlana*.

If health and beauty in thee shine,

What then ?

If world combines to sing thy glory,

What then ?

If endless ages read thy story,

What then ?—*Sihlana*.

(10)

Thou man, God-made of life and death,

For good of man surrender breath.

'Tis then.—After *Sihlana*.

(11)

By meakness conquer wrath,

Falsehood by truth,

Meanness by gen'rous gifts,

Transgression by ruth.—*Mohābhārata*.

MOHINIMOHAN CHATTERJI

YOUTH

Through life's brief day, laugh while we may,
 Who knows when comes the Night of Death !
Now blooms the bud, now fades away,
 Its beauty gone, its fragrant breath !

The " sweet South " rare, it bloweth fair,
 A lull doth follow in a trice :
If wise ye be, then haste to share
 Its charming breath, beyond all price.

The tide doth swell, the tide doth shrink,
 So youth doth come, so youth doth go ;
Thus, ere 'tis late, your fill ye drink
 Of youth's enchanted cup : its glow —

Doth shortly fade, and then the boon
 Recalled it ne'er can be again :
'Tis folly pure too late to croon,
 For once 'tis gone regret is vain.

So sip the draught of honied youth,
 The rest of life is cark and care ;
Youth's rosy dreams, for very truth,
 Delicious are beyond compare.—*Mr. D. L. Roy*

A MISTRESS TO HER LOVER

For my poor sake, my love, this garland wear,—
Pray, let the beauteous wreath thy neck adorn :
My sorrowing heart 'twill soothe, my dearest dear,
At least the sight will make me less forlorn.

And when the wreath thy ample breast doth greet,
A picture, sure, 'twill be of beauty rare :
But I suspect lest when the twain shall meet,
They cost me secret pangs I scarce could bear.

So wear it not, a barrier lest it be
Betwixt thy heart and mine, my charmer fair ;
For meet it were thy heart did o'er agree
To suffer none but me its warmth to share.

Bound each to each by love's rare silken tie,
May we in nameless bliss dream life away !
For worthless gew-gaws' sake why need we sigh,
Our mutual love is richer still than they !

And is there aught now left for me to show
How great the measure of my love for thee !
I've given thee all I had, is what I know,—
Thy life-long mate am I by Heaven's decree !

—*The Maharajadhiraj of Burdwan*

JYOTISHCHANDRA BANERJEA

The Calcutta Review



JUSTICE SIR JOHN WOODROFFE

Review of the Calcutta Journal

THE HON'BLE MR. JUSTICE J. G. WOODROFFE¹

(*An Appreciation*)

We have heard with great regret that Sir John Woodroffe is soon going to retire from the High Court Bench and leave India for good. It is needless to say that the news has caused great distress to us, and we have met here this evening, under the auspices of the *Vivekananda Society*, to give expression to our regret and to record our sense of the loss our country will suffer by his retirement.

Sir John Woodroffe occupies a high place in the affection, gratitude and esteem of the people of Bengal. His valuable services as an able, experienced and conscientious Judge are greatly appreciated by the Bench, the Bar and the general public, and his retirement is rightly looked upon as a great public loss. Bengal has intimately known his family for three generations. His maternal grandfather was a Magistrate of Calcutta in the early forties of the nineteenth century. His revered father's able and eminent services as the leader of the Calcutta Bar, his high character and his wide sympathy for his Indian fellow-subjects are to this day remembered with pride, admiration and gratitude. In the early part of his career as an Advocate of the Calcutta High Court, Sir John raised great expectations of proving to be a worthy successor of his distinguished father but events took a different turn and he left the Bar for the Bench. His appointment as a Judge of the High Court gave great satisfaction to all sections of the community and it proved to be a very happy selection.

In the interest of scholarship and culture, his elevation to the Bench may be considered to be providential. For had he

¹ Presidential address delivered at a meeting of the *Vivekananda Society* held at the Bangiya Sahitya Parishad Hall on the 11th August, 1922, when a farewell address was presented to Sir John Woodroffe.

remained engaged in the busy practice of his profession, it is very doubtful if he could have found time to devote himself to the study of some of the abstruse problems of life promulgated by the religion of ancient India and her philosophy. The results of his profound scholarship and deep study have immensely enriched the store of human knowledge and has secured for him a high place in the front rank of the oriental scholars of the day. A more earnest, a more diligent, a more devoted and a more sympathetic student of the Hindu Religion, Hindu Philosophy and Hindu Culture can seldom be found among Europeans, in India or abroad, at the present moment. He has studied the whole subject with a mind free from racial, political or religious bias and has approached it with a single-minded determination to search after truth. All his writings, while permeated by a broad and intelligent sympathy for the Indian type of Culture, are inspired by this strong sense of strict regard for truth and by an intense desire to do justice to the subject. Sir John Woodroffe is an ardent admirer of Indian Civilisation and Indian Culture, and the appearance of his books on the subject, viz., "*Is India Civilised?*" and the "*Bharata Shakti*," at the present moment is most opportune, as it will help to concentrate the attention of educated India to what rightly belongs to them by precious heritage and what they are in duty bound to save from the disintegrating influences of an alien Culture. It is a matter for sincere congratulation that the University of Calcutta is at present doing its level best, commensurate with the resources at its disposal, to encourage and facilitate study and research in Indian History, Indian Civilisation and Indian Culture, and already a good deal of spade-work has been done in this very important but long-neglected branch of human knowledge.

Sir John Woodroffe has incurred the displeasure of some of his own countrymen for his vigorous defence of Indian Culture and his condemnation of the harmful aspects of the

Western Civilisation and Western Culture. One who cares for truth only, need pay no attention to such unfair criticisms which are more or less prompted by religious prejudice, racial vanity or political motive. India will ever remain grateful to him for his bold, illuminating and scholarly exposition of the fundamental principles underlying Hindu Civilisation and Hindu Culture and for his earnest appeal to our countrymen to defend them against defilement and disintegration. Let me quote here his own forceful and inspiring words:—

“It is for the Indian people to say where they will go. What I urge is that the Indian spirit should be *itself* and thus have *cultural freedom*. When it has regained this, by study and appreciation of its own inherited ancient and grand culture and by the casting away of all unassimilated foreign borrowings, it may go where it will. I have confidence that in such case, its way will be the right way—that is an Indian way. The inherited ideas and instincts (*Sangskaras*) of thousands of years will assert themselves. In any case, I believe, that Indian Culture has value, and that its ideas, if spread, will have a beneficial effect on men at large.”¹

Sir John Woodroffe is, however, not blind to the faults and corruptions of the present Hindu Society and he condemns them with all the vehemence and earnestness of a moral teacher and a true friend. In his defence of the Indian Civilisation, he has nowhere said that the West is entirely materialistic, that every Indian is a phenomenon of spirituality and that there is nothing in the occidental civilisation which cannot with advantage be absorbed and assimilated by the Indian type. He fully recognises the fact that the present Hindu Society is thoroughly permeated with materialism. What he has tried to prove in his writings is that the character of Indian Civilisation is distinctly and predominantly religious and that regeneration of India should proceed on truly Indian lines and must spring out of the Seed which has

¹ *In India Civilized*.—p. xvi.

produced the Indian race. Every right-thinking man having the interest of India in his heart, will agree with Sir John Woodroffe in his well-reasoned conclusion.

For a great many years, he has been assiduously applying his leisure to the study of Hindu scriptures, specially the *Tantra Shastra*, and his essays and addresses constituting the volume known as "*Shakti and Shakta*," are valuable contributions to the literature on the subject. By writing this book, he has done a very great service to India by creating an interest among educated Indians in the study of this neglected and generally much-despised Hindu form of worship. *Tantra* for centuries exercised a predominant influence on the social and religious life of the people but it was put to such great abuse by the ignorant followers of the Cult that the word *Tantra* became synonymous with sorcery and all kinds of moral depravity practised under the garb of religion. *Tantra* became a proscribed literature in the higher strata of the Hindu Society and its followers were despised and shunned. Sir John Woodroffe by his erudite and lucid exposition of the philosophy of the *Tantra Shastra* and by his correct interpretation of the various rituals practised under the system, has been successful in removing, to some extent, the odium attached to the name of *Tantra* and softening the prejudice entertained by educated Indians against it.

Sir John Woodroffe has done another great service to India. India is chiefly an agricultural country and cattle is the principal wealth of her people. Indians live principally on milk and its products. The well-being of the cattle-life in India is, therefore, intimately connected with the health and prosperity of the people. Sir John Woodroffe as President of the All-India Cow Conference Association (which has its headquarters in Calcutta), has helped much to stimulate the activities of the people in the matter of protection, preservation and improvement of cattle-life in India. A great deal of propaganda work is being done by this Association and its

branches, in consequence of which slaughter of cattle in some places has been stopped and better care of cattle-life is being taken by the people. Dairies are also being organised for supply of pure milk. His connection with this Association has proved to be a great impetus to the movement for the protection and improvement of cattle-life in India and his retirement will be a great loss to this good cause.

We, the members of the Vivekananda Society, are under a deep debt of gratitude to Sir John Woodroffe for the keen and kind interest he has always taken in its affairs. A few years ago, he honoured the Society by delivering a series of seven lectures on the Philosophy and Practice of *Shakti-Worship* which were finally embodied in his great book on "*Shakti and Shakta*." He is a great admirer of Swami Vivekananda and he wishes to see that the life and teachings of that great man are widely read and emulated by the young men of Bengal. At one of the annual meetings of this Society, Sir John Woodroffe was good enough to read a paper on the *Philosophy of the Tantras*, and at another annual meeting, he did us the honour to preside over it. He has very kindly and generously presented his valuable works to the Society as well as the voluminous *Tantric* Texts with their translation and commentaries published by him under the *nom-de-plume* of Arthur Avalon. We take this opportunity to offer our heartfelt thanks to Sir John Woodroffe for the many acts of kindness done by him to the Society.

In conclusion, we fervently pray to God that his life may be spared long and be spent in the service of England which is his *Janma-Bhumi* (Land of Birth) and of India which has been his *Karma-Bhumi* (Land of Labour) for over 33 years. May he enjoy peace, happiness and health in his well-earned retirement.

CHUNILAL BOSE

RADHA

Go away, Radha, go away, my girl :
I know that long dark hair without a curl,
Those almond eyes, that subtle nutbrown hue,
Those red-stained feet, that clinging scarf of blue,
And that deep heart that beats beneath the breast
That Krishna's happy fingers often pressed.
Go away, darling ; it is a land where night,
Opening lotus-petals, pink and white,
Under starred skies, and silent as they of sound,
Makes your sweet body supple, soft, and round ;
Where sunshine makes the day a philtered cup.
It is in vain your men-folk shut you up.
Since I have seen the child, and have the sense
To feel the rapture, wine-drugged, sharp, intense,
That you would give, grown, Radha, a maiden, ripe,
Listening, with oft-kissed ear, for Krishna's pipe,
If you heard this, my singing, and came to be
Mistress of mine, and loved and worshipped me.

Stay away, Radha, stay away all night,
Too fair, like lotus-petals, red and white ;
Make it more thick, the clinging scarf of blue :
Wrap it well round you, hide the whole of you ;
Never make sound behind the shuttered wall :
Let me see brick, and think that that is all.

Yet still I'll know that you are ripe within ;
And, could I reach you, I would sin the sin,
And lose all heaven, and oh, how many earths,
If they were mine, and add how many births,
Gladly, rather than lose you, and not make
All life a doing of things for Radha's sake.

O thou of the milky breasts, out of the mist
Of Indian nights thou surely leaned, and kissed
My mouth, or was it this old, sweet, lyric book,
The *Padakalpatara*, whose reading shook
My body ; so that quickly a passion grew
No words could still but thine ; but one or two
Of thy words, Radha, could, if thou shouldst speak them,
Offering kisses, and then I would let thee keep them.

Yes, yes, you darling : for God hath given already
This man a sweetheart, and man must be steady,
And break no peace ; for many a railing tongue
Hath silenced song that man meant should be sung ;
And I must sing ; but I will sing of you,
If you will promise, Radha, and promise true,
To read my songs, and keep the windows hung
With curtains thicker than any scarf of blue.

J. A. CHAPMAN

VENGEANCE IS MINE

BOOK II—CHAPTER VI

DREAMS OF A GOLDEN FUTURE

Thus a week of pure joy flew by on golden wings. Ramanlal had gone to Surat in response to a telegram. Jagat and Tanman read together, talked together, walked together and sometimes sang together on Tanman's instrument. Had mankind not deliberately spoilt our earth, it might have given us a taste of some of their happiness and our planet might have been an abode fit even for the gods. The doings of these two might have shocked those whom the world calls "wise," whose "wisdom" has been gathered by shutting their eyes deliberately to thousands of sins committed by themselves and others. These "wise" people would have accused these innocent children of sins undreamt by them and would have quoted numerous "wise saws and modern instances" of "morality" which have been invented by knaves, trumpeted abroad by false shepherds and believed in by fools. But love like this has been experienced by the most innocent, and the best poets have sung of its joys, and *truly* the wise have understood its innate purity. Only jaundiced eyes see "immorality" in this; but a thing does not become impure if the eye of the observer is pure.

Gulab-ba was experienced; her eye trained in the ways of the world saw something of Tanman's real condition, and she did not like that Harilal should thus fondly indulge her. At home, too, the step-mother was of little account before the clever daughter, and hence she was not likely to miss any opportunity of paying back all these grievances. But Tanman was no whit less alert, and at the first rent of the matter on the part of Gulab she raised such a storm that

Gulab-ba had to retreat crest-fallen and defeated. Often and often had she broached the subject of Tanman's marriage, but Harilal could not or would not see. In their caste there were exactly three bridegrooms and a half eligible. The first was a worker in Bombay dockyard, the second was a clerk in the city, and the third made a fair show after mortgaging his ancestral property. The remaining "half a bridegroom" was an old fellow of fifty, who had already seen two wives out of the world and whom the Government insisted upon putting on the retired list as being in an advanced stage of senile decay. Which of these three bridegrooms and a half Tanman was to bless with her hand and her dowry? How could a fond parent screw up courage to bestow her upon any?

"Kishor," said Tanman sitting down beside him on the bench in the mango-grove, "they were thinking this morning of selling me by auction."

"What do you mean?"

"I am to be put up to auction. You know that *Ba* of ours; she was talking of getting me married": there was a distinct sneer in her voice.

"Getting you married?" repeated Jagat seriously. The words had roused a train of thought in his mind. Tanman saw his anxiety and she wished to tease him again.

"Why are you astonished? You just wait and see. We shall be married and there shall be a grand procession, and then the bridegroom shall come to fetch in and then we will go home?"

"She said this with such gestures that Jagat could not have helped laughing outright at any other time. But just then these words called up such a picture before his eyes that he was sore afraid at heart. He asked sadly, "And when are you to be married?"

"Oh, by and by. And then the women-folk will sing at our wedding and the lord of our heart shall come to fetch

us, flashing out in yellow hue¹ and he shall be trussed up in a fine tunic² and his head shall be crowned with a gorgeous turban as big as a barrel!"

"Tanman, don't! Please don't tease me," exclaimed Jagat in utter despair, "To the devil with the lord of your heart, and damn his barrel-turban. Talk straight to me or I will go away."

Tanman restrained him and made him sit down again. "Dear me, dear me! How can you say such words? If my lord goes to the devil what shall I do?" she cried with a weeping voice and a smiling face.

"You are always a tease, let me go," Jagat got up.

"Don't go, Kishor dear, for my sake--"

"Then do for goodness sake leave off your jesting. You think it good fun, but it means death to me."

"No, no. Do not be so very angry, my dear."

When she coaxed him, it was impossible not to yield. Jagat sat down again.

"And when are you going to marry?" he asked in a tone as if on her answer depended the cure of all his worldly ills.

"Whenever you command me."

"I command? With whom?"

Tanman's eyes sparkled again with mischief: "With a certain person."

"I know all that. But who is he?" Jagat's voice was trembling.

"Shall I say? --No, I won't."

"Do, please!"

"Shall I?"

"Do tell me."

She laughed and gently hit his cheek with her fingers.

"Are you not ashamed to ask?"

"Tell me, Devi, with whom?"

"I do not marry a second time."

¹ The bridegroom's body is rubbed over with turmeric.

² The *jamā*, an ample tunic reaching up to the ankles and tied up tight round the waist.

"But who is to be your first husband."

"I have already been married once."

"There you are, jesting again! Oh, Devi, Devi, you have no pity for me: for the last fifteen minutes I feel as if my heart would stop and you enjoy torturing me in this fashion. I am going away in two or three days you know."

"Why are you thus excited, my Kishor! My foolish boy, have you lost your senses? Whom should I marry again but my own Kishor? Have you forgot how I married you six years ago? Did you think we have been only playing so long? Gulab-ba may do her worst and welcome. Have you forgotten what we read yesterday about her 'who walked the bright milky ways of heaven?' I will fall on the head of *my* Mahadeva and nowhere else. I will marry *you* alone and none else. I shall be your wife, or else, separated in this life, I shall remain your widow."

Her face glowed with a divine radiance, as she drawing herself up proudly, looked at Jagat as if conscious of her complete conquest of his heart. She uttered these words of irrevocable resolve with the air of an empress announcing her decree. Her wisdom had always been beyond her age, and in her acts there was always something fresh and unexpected.

This was the first time Jagat had seen this phase of her character. He thought that *Draupadi* in her anger in the 'gaming assembly' might have looked like her. He knelt down at her feet and touched them with his hands. Then he took her hand in his and cried, "Devi! My Devi! Pardon me. How unworthy am I of you! You remembered our childlove twice a day but I hardly once a week. I am so fearfully perplexed but you have already made up your mind. Verily, my Devi is a goddess herself." He put his head upon her knee. With love indescribable and infinite tenderness Tanman put her hand on Jagat's head.

"Kishor dear, what are you thinking about?"

"I have been thinking how long we can get along like this? No one would allow us to come together and we cannot live apart. I have glorious visions of the future. I am yet a boy but my aspirations reach the stars. I wish to make my life great and useful. If all things turn out favourable I will write something or do something or leave something behind me, which shall astonish the world. But all this shall be for *your* sake alone; to see you pleased, Devi mine, shall be my highest aim. From childhood my happiness has been twined round your dear self. Without you I am as dead. If my goddess girds on my sword, I, her belted knight, will conquer the world. If I may light my lamp at your pure flame, only then will it become a beacon to mankind. My Goddess! my Devi!..." His emotion stopped the torrent of his words. He bent his head upon her hands.

"But, Jagat, my love, all these others will never allow us to marry."

"Never mind. If we remain firm what can they do? Let us not care a snap about caste and such other nonsense. As long as you are with me I feel as if I can defy the world alone."

With the proverbial perverseness of the ostrich they hid their heads under the sands of the youthful hopes. They thought that the storm would pass them by without harming. But Hindu Society is even to-day like the Car of *Jagunnath*. It lumbers onwards crushing thousands of innocent victims under its wheels. They never for a moment stopped to think of its relentless progress. For in their innocent hearts the whole question had been satisfactorily solved. Thus dreaming of a golden future and in looking forward to it their last happy moments together passed away. While parting Tanman's face was radiant with the love she had acknowledged. She pressed both her hands upon Jagats' lips, she poured forth all her love through her eyes into his. Abandoning herself to her feelings

she twined her arms round Jagat's neck and from the depths of her blissful soul whispered, "My husband!"

CHAPTER VII

FAREWELL

After the events narrated in the last chapter they had no further doubts left. They thought the hidden future all golden and awaited it with calm hopefulness. At last the dreaded Friday arrived. Jagat was to start the next morning. He gave Tanman her last lesson, they sang together their last song, they read together their last story, they looked at the pictures in the *Iliad* together for the last time. But they had reserved their quiet stroll by the sea to the very last. At the stroke of each hour they both started, and, as if to forget the fast approaching moment of parting, they talked and laughed more than ever. With fluttering hearts they saw the flaming sun sink into his ocean bed. On their return they felt at each step the chords of their "harp of life" stretching until at last they threatened to snap.

"Well, I will be back here after dinner," cried Jagat and walked away without looking back. He remembered the first parting six years ago. He thought of this unexpected meeting, and all the sweet experiences of the past couple of weeks stood out vividly before his eyes. The next moment he saw the second parting ahead; and he felt in his heart as if the sword of Fate had pierced him through the heart. If they could not meet again? If they could not keep their plighted troth? The world seemed full of enemies. Why else were loving hearts kept asunder to pine away in bitter loneliness? Caste

was an artificial barrier; the elders were all heartless tyrants. Why else were there so many obstacles to the course of true love? Why should he not leap over these barriers as *Hanuman* did once? Was there no corner in this vast globe far from human habitation, where loving hearts could live together happy in each other's company? Where they could forget the rest of the world with its sins and its impossible relationships? Where they could live together in accord with their innermost promptings and thus finally attain to Truth, Wisdom and Bliss?¹ Full of these thoughts Jagat ate his meal and then walked over to take leave of Harilal. He sat there and talked and talked. It is said that a man about to start for the desert wastes of Marwar tries to drink all the water he can and Jagat talked as if he was never going to talk to them again. But this did not quench his thirst for more. At last he recollected himself, and he got up to take leave at the stroke of eleven o'clock. But what could he say to her before them all?

"Tanman, if you come to Bombay or Surat do let me know. I will certainly look you up. And you too, Gulab-ba, you must come and visit our home."

To avoid breaking down completely he ran down the stairs; but he was sure that Tanman had not yet said adieu to him. How could they part with such cold words. Even mortal foes would show greater warmth at parting. So he waited downstairs for a few moments. Tanman had run down by the back staircase and was waiting outside. Jagat went up to her at once, took her hand in his and pressed it. Hand in hand they walked up to the big garden gate.

"Kishor, my love, when shall we meet again?"

"How can I say? But as soon as possible, if I can help it. Be a little patient, my dear, I will make all arrangements and then we will go away together with my mummy. Do not be afraid at all."

¹ *Satchidānanda*, the triple aspect of God.

Tanman bravely lifted up her tearful face and cried, "Kishor dear, as long as you are there I am not afraid. Come back to me soon. Let me go now. I have come secretly, and there will be trouble if Gulab-ba misses me."

"Devi dearest, then good-bye!" Jagat stretched out his arms and Tanman threw herself into them. Their tears mingled together. Their parting embrace was long enough and ardent enough to last them through all eternity. Jagat leaped outside across the wicket. A pressure of the hand,—and then upon Jagat's cheek a touch of lips, a blazing spark to start the conflagration of the *Khandara* forest. There was a slight crash as the wicket closed and the shadow of Tanman was seen running rapidly along the gravel walk. Jagat found himself alone in the cold, pitiless, mocking moonlight. The world was all silent and lonely; lonely and silent was his heart as well. He sighed deeply, wiped his eyes and moved away from the gate with a heavy heart.

(*To be continued*)

KANAIYALAL M MUNSHI

HEALTH OF OUR COLLEGE STUDENTS¹

A work of great national importance has been undertaken by the University of Calcutta. You are aware of the Student Welfare Scheme which has recently been organised by our University. It has a branch called the *Health Examination Section*, the object of which is to make a systematic examination and record of the health of our college students so as to form an adequate idea not only of their physical efficiency but also of the amount and nature of illness which exists amongst them. Many of the ailments from which our students suffer are not of a serious character and can be easily cured if proper attention is paid to them at the beginning, but neglected, they may produce permanent organic and constitutional defects. The result of the enquiry shows that these ailments often go untreated, and even serious defects of vital organs remain undetected. Under the scheme, if any defect is found on examination, the doctor advises the student to consult his family physician, and if necessary, a specialist also, for early and proper treatment of his malady. The importance of the scheme cannot, therefore, be too strongly emphasised. As students of to-day form the future manhood of the nation, the scheme is expected to exert a most beneficent influence on the formation of the future Bengalee race.

Such schemes on an elaborate scale have been adopted in other civilised countries and have produced the best of results not only by improving the health and physique of the student community but also by creating a manly and vigorous national life. I believe Boston is the first city which organised medical inspection of scholars in 1894. There are now more than eighty cities in the United States of America which have provision for medical examination of pupils in the

¹ An address delivered at the Y. M. C. A. on 12th September, 1922.

schools located therein. The British Parliament passed an Act in 1907 providing for medical inspection of school children. We have not got any law on the subject in India and the existing arrangements, I regret to say, are neither complete nor satisfactory. There should be a medical examination of scholars in each school at least once a year and information on the following points, *viz.*, (a) height, (b) weight, (c) girth of chest, (d) lung capacity, (e) strength of the fore-arms, (f) eye-sight, and (g) presence of disease, etc., should be carefully recorded.

We are not a day too early in inaugurating this reform in our University. Although we have begun at the wrong end (for medical inspection should commence with schools where some of the physical defects of later life originate and become perpetuated unless timely corrected), I feel sure that much may still be done by timely advice and prompt action to improve the poor health and remove the defects of our college boys as disclosed by the investigation. The work has just commenced, and owing to our financial strain, we have not been able to expand it as its importance and usefulness would demand. The operation of the scheme is now confined to a few colleges in Calcutta, but as our finances improve, we hope to see it extended to all colleges in Calcutta and in the mufussil as well. The Committee have finished their examination of the students of the Presidency College, the Scottish Churches College, the City College and the University Classes and have submitted a report which is a most interesting and useful document. Every one of you should read the report and see for yourself the physical defects from which you suffer, and how by paying early attention and taking proper care, you can altogether get rid of them or check their further progress.

According to the report recently published by the Publicity Officer, it is satisfactory to note that the work of *medical inspection* of schools has just been taken up by the leading mufussil Municipalities of Bengal.

The Chairman of the Darjeeling, Dacca, Cossipur-Chitpur, Maniktala, South Subarun and Howrah Municipalities are to be particularly congratulated on being the first to inaugurate the long-needed reform. Burdwan and Rajshahi are likely to follow suit. The actual work of inspection is being done by the Municipal Health Officers. The records so far available show that defective eye-sight is very common among the school children. Dental caries and skin trouble are also of frequent occurrence. Enlarged glands, tonsils, heart disease, malnutrition, ear trouble, external eye diseases, etc., are amongst the other defects noted. It is noteworthy that both in Dacca and Darjeeling, only one case of splenic enlargement was found among the school boys. It will be interesting to compare these results with the records of school children in the towns of the Burdwan and Presidency Divisions where malaria is much more prevalent.

You will be surprised to hear that out of every three college students, two, *i. e.* 66 per cent., suffer from one or other ailment. This is a very disquieting piece of news and I know you will not thank me for it. But all the same, the evil exists and it threatens to incapacitate our student life. We must, therefore, fight it out and put it down as best as we can.

Altogether 3,445 students were examined in the four colleges. It is not my purpose to deal with the report in detail but to pick out a few more important defects noticed in it and to advise you as to the ways and means, preventive as well as curative, which will help you to keep clear of them or prevent further mischief which is sure to follow inaction on the part of the victim.

I. GENERAL APPEARANCE AND DEVELOPMENT:

Only in 10 per cent. of students good muscular development was noticed. Fifty per cent. were of medium development, their muscles being not so strong as they ought to be, while 32 per cent. of the students were thin with ill-developed and flabby muscles.

As was expected, boys from well-to-do families generally showed better physique and stronger muscles than those coming from poorer homes. This defect in development and musculature may be traced to two main causes, *viz.*, (1) *poor food* and (2) *want of physical exercise*.

Poor Food.—The diet of our Bengalee students is physiologically unsound. In it, the proteids, carbohydrates and fat are not in proper proportions; it is, therefore, an ill-balanced diet. It is too rich in starch and sugar and often too poor in proteid material. Starches and fats have nothing to do with the building and development of muscles; it is *protein only* which helps the repair and growth of muscular tissue. Want of musculature noticeable in the majority of our Bengalee students is chiefly due to deficiency of the muscle-forming element in their daily diet.

The chief sources of protein are meat, fish, eggs, milk and its products and *dal*. The prices of the first four of these articles have gone up so high during recent years as to be hardly available in required quantity to our poor students. They have, therefore, principally to depend upon *dal* (pulses) which is the cheapest of all proteid foods. But unfortunately they do not or cannot take it in sufficient quantity, firstly, owing to an ill-founded prejudice against it as being an indigestible article of food, and secondly, because it is generally taken in one form only and that also badly cooked and, therefore, uninviting. Various delicate and palatable dishes may be prepared from *dal*. When it is well-cooked, it becomes easily digestible and 92 per cent. of its proteid-contents could be assimilated in the system, the figure for meat being 97. In our messes and hostels as well as in our homes, those in charge of the kitchen would do well to depart from the routine method and exercise a little originality and ingenuity in the matter of preparation of our food which is often too monotonous and unattractive. If they only make a few palatable dishes in which *dal* forms the principal constituent, not only the monotony of the diet

will be relieved but in such inviting forms, *dal* will be taken in much larger quantity than now, so as to fully meet the nitrogenous requirements of the body.

Wheat-flour is much richer in proteid than rice (nearly double). If it forms at least one meal of our young men, it would, to a certain extent, make up the proteid deficiency of the Bengalee diet. In our hostels and messes, arrangements should be made to supply the boarders with *chapal-es* in their evening meals. Prisoners in our jails in Bengal are now getting *chaputees* instead of rice in the evening and the Jail Administration Reports show that this has greatly improved their health. The results of observation in a Government College Boarding show that deficiency of proteid in diet materially affected the health of students and retarded their growth and development. In this case, two sets of students of nearly the same age, one being Eurasian and the other Bengalee, lived under exactly similar conditions of climate, housing, study, play and manual work with this difference only, *viz.*, that the daily diet of the Eurasians contained one-third (33%) more proteid than that of the Bengalees. The records of health examination of three years showed that while the majority of Eurasian students gained in weight, height and girth of chest, the Bengalee students showed a slight increase only in the case of a few, while a considerable number showed an actual deterioration.

I think it is a matter of common knowledge that people of other provinces of India who live principally on *dal* and *rottee* are of much better physique and strength and possess greater capacity for work than the rice-eating people of Bengal and Orissa. The result of the University enquiry also showed that poorly-fed students were generally inferior in height and weight and in grip-force to their brethren coming from well-to-do families.

Want of Physical Exercise.—Next is physical exercise which would give you strong muscles, strong lungs and strong

heart. Our students should join outdoor games in larger numbers and with greater regularity than they do at present. There has, no doubt, been a great improvement in this matter during recent years, but still a great deal of reluctance is noticeable among the Bengalee boys to do any kind of physical exercise. In a school or college, only a limited number of boys is found to take part in games; the majority avoid it. Physical training must be a compulsory subject in all schools and colleges; only those students who are medically pronounced unfit should be exempted. The University should insist upon certificates of physical training from candidates seeking admission to its examinations.

It is much to be regretted that many of our schools and colleges, specially those located in Calcutta, have not got their own play-grounds. It is the duty of every school and college to provide for a play-ground for its own pupils either in the school compound or outside it but not at too great a distance from it, and at least 30 square feet should be set apart for each pupil. It is very difficult to make such a provision in Calcutta where the price of land is very high; it would not be difficult, however, to make suitable arrangements in the suburbs of Calcutta.

The Scottish Churches College has got a well-equipped Gymnasium and good arrangements for outdoor sports. The other day I attended the interesting annual display of the Gymnasium of this College. The Secretary in his annual report regretted that out of a strength of about 1,000 College students, only forty are members of the Gymnasium. On enquiry, I learnt that about 100 more students take part in the outdoor games. Although it is disappointing, I believe it is a better record than most Colleges in Calcutta can show. I was very glad to hear that the College has completed its arrangements for making physical exercise compulsory for the First Year students numbering about 300. I congratulate the College on its wise decision. The arrangement means

that at least 300 boys will regularly receive some kind of physical training annually in this College alone. I hope the good example set by this College will be followed in other institutions.

II. POSTURE.

The next defect noticed was the *posture* of students. A large number (about 41%) showed *sloping posture* and this was most marked in younger students. For this, the school and college authorities are more to blame than the students themselves. The kind of seats and desks provided for in most of our schools and many of our colleges are designed without any regard to physiological and hygienic considerations. Most schools have no provision for suitable seats and desks. Boys made to occupy such uncomfortable seats for hours, necessarily feel cramped, fatigued and uneasy. Some of the muscles of the body are over-strained, while others remain inactive. The inevitable consequence is that he cannot keep himself in an erect posture but bends forward, drops his head, raises his shoulders in the act of supporting the weight of his body by his hands placed on his thighs, and this, repeated day after day, produces structural changes in the bones and muscles and he permanently acquires a stooping posture. Pupils in any class vary considerably in height but they are all made to sit on benches and use desks of one and the same height which are fixed and unalterable in position. Such an arrangement is neither conducive to convenience nor comfort of the pupils. The desks are often not inclined and therefore unsuitable for both reading and writing purposes. The seat-arrangements are most defective in our schools; hence the stooping posture is more marked among younger students coming fresh from schools than among older boys whose posture improves under better seating arrangements in their colleges.

Great attention is being paid to seats and desks in schools in Europe and America during recent years. It is now recognised that each pupil should have a separate seat and desk for himself, and both the seat and desk should be of an adjustable type, so that they could be raised or lowered to fit the height of the pupil. The feet should firmly rest on the ground and not dangle in the air. There should be a mechanism to change the slope of the desk which should be at an angle of 15° for writing purposes and it should be on a level with the elbows of the pupil. Seats should be provided with a back rest and grooved or hollowed to prevent pupils from sliding forward. The correct and easy posture in writing is that the shoulders should not be raised, the head should not drop forward nor the spine bent.

Most of our schools and colleges are barely self-supporting and it cannot be denied that financial difficulty stands in their way of providing hygienic seats and desks for their pupils. A beginning should, however, be made in all Government schools and colleges and in well-financed non-government institutions to provide pupils with separate adjustable seats and desks.

Most of our students do not use table and chair at home for study but generally squat on the floor or on a bedstead and read and write by placing the book on their lap. It is needless to say that this is a very faulty posture and leads to stooping. In such a case, a desk or a small stool of suitable height should be placed in front as book-rest, so that reading and writing may be done on it in an easy erect posture. Reading and writing in a lying position should be avoided as it produces fatigue, induces muscular cramp and is bad for the eye.

Students at the time of giving their lessons in the class or working exercises on the black-board should stand with head erect, with both feet firm on the ground and with both shoulders and the hips on the same level. They should not

bend their head to one side or raise one hip or shoulder on a higher level than the other.

III. VISION.

Another very common defect noticeable in our college boys is *defective eye-sight*. It was noticed in 36 per cent. of the students examined by the University Health Committee and a very large number of them did not use glasses to correct it. The error was of a refractive nature (either short or long sight) and could be corrected by the use of proper glasses. Improper lighting of class-rooms and of study rooms at home, defective posture due to ill-suited benches and desks, unsuitable artificial lights used during night, and sometimes a desire to put on glasses where these are not required, are some of the main factors which induce refractive errors in vision. No doubt, the defect is natural in some cases but their number is very small. If the defect is recognised and attended to early, not only further mischief may be prevented but in not a few cases, complete cure may be effected. One of the good results of medical inspection of a school is that as soon as the defect is found out, the boy is at once advised by the medical inspector to consult a specialist and use the proper kind of glasses prescribed by him. It is satisfactory to note that the Calcutta University has made arrangements for supply of glasses at cost price to poor students when recommended by his medical attendant. Some of the class and reading rooms in many schools and colleges are very badly lighted. In cloudy days, the trouble is most felt and it causes a heavy and damaging strain on the eyes of the young readers. I regret to say that the Calcutta University is not above blame in this matter. The reading room in the Durbhanga Building is so dark even on a bright sunny day, that the best sighted students cannot read there

without much strain to their eyes and very often they require the help of artificial lights. This is much to be regretted, considering that a large number of young men daily pass several hours there availing themselves of the rich and rare collection of books in the University Library.

For proper lighting of a class-room, the window-space should be at least one-sixth of the floor-space. They may be placed at about four feet above the floor but should be high, as about one-third light comes from the upper part of the windows. The light should come from the back and sides, preferably from the left side, of the pupils which would thus prevent their shadows falling on books.

Many class-rooms are not only ill-lighted but also inadequately ventilated. The vitiated air of a stuffy class-room poisons the blood of the pupil and makes him dull, tired, inattentive and sleepy. It favours the spread of tuberculosis and other infectious diseases of the lungs. Pupils should be permitted to go out in the open air for about ten minutes after each period. Weather permitting, it is best to hold open air classes under shady trees where the school or college possesses a big compound.

The use of proper glasses would no doubt rectify refractive errors. But as prevention is always better than cure, one should try his best to avoid those causes which lead to defective vision. Some of the rules and conditions which are helpful to preservation of good sight are noted below and it would be best for all of us to observe them as strictly as possible. All school and college authorities should take early steps to improve those unfavourable conditions existing in their institutions which injure the eye-sight of the pupils.

- (1) Reading in insufficient or too strong light is bad for the eye. The illumination should be such as neither to strain nor to pain the eye.
- (2) Ill-lighted class-rooms injuriously affect the eye-sight and are responsible for many a case of

defect of vision in our students. In a class-room, the seats should be so arranged that pupils should not face the openings for light (to avoid glare). The seats should be at right angles to the windows and most light should come from the windows on the left side of the pupils and from the back. There should be sufficient light in the room to enable a pupil with normal eye-sight to read small print in any part of class-room at a distance of a little more than twelve inches from the eye.

- (3) When using artificial lights, they should be placed at the left-hand side and back of the pupil or hung from ceilings protected with shades. Such an arrangement would help avoiding glare and shadows falling on books. All artificial lights should be covered with shades of a green or grey colour. Electric lights are best for reading and also on hygienic grounds as they do not pollute the atmosphere. Next best is gas light and then come the Kerosene lamps. The dim light of *Cheraks* is not good for study; their dimness causes strain to the eye.
- (4) Small types are most injurious to eye-sight. Books in small print should never be used by boys. The Text-book Committees and the Boards of Studies in the University should bear this in mind in selecting books for our boys. The indistinct, blurred and close printing of some of our Indian newspapers cannot be too strongly condemned. Guardians and teachers should keep an watchful eye on this matter.
- (5) One of the golden rules for preserving the fitness of vision is not to read a book in a lying posture (on back). In reading, the natural position for

the eye is to be *above the book* and *not under it* which causes strain and fatigue. This is well illustrated by the strain and discomfort one experiences when he looks at a picture above his head even for a short while.

- (6) It is the practice with many people to read a book or newspaper while travelling in a railway carriage or in other vehicles. This is not good for the eye which has to alter its mechanism continuously in order to adapt itself to constant up and down positions of the book caused by the jolting of the carriage. The object must be at a fixed place in order that the eye may have a clear vision of it. If the object moves and frequently changes place, the mechanism of vision will also require constant change in order that the eye may adapt itself for clear vision to the changed position of the object and this produces severe strain and fatigue to the eye. Reading while travelling should, therefore, be discouraged as much as possible.
- (7) And lastly, complete rest should be given to the eye as often as possible. Even during study, eyes should from time to time be taken away from the book and applied to objects situated at a distance. This alone will give much relief and will minimise the bad effects of strain. The eye-sight of village students is generally better than that of city students. The latter have constantly to fix their eyes to close objects, to the white walls of their rooms and to white and grey buildings of the town, whereas the village boys enjoy the distant and soothing sight of green fields, clusters of green trees, open blue sky and the beautiful broad landscape bordering on the horizon. Illiterate

people suffer less from defects of sight than educated people owing to constant strain on the organ of vision caused by reading and writing. It is best for townspeople to go as often as possible to mufusil in order to give a feast to the eye of natural sceneries.

IV. PERSONAL HYGIENE :

I shall conclude my address by a brief reference to personal hygiene which is often neglected by our students. To those who have occasions to come into contact with our students living in messes and hostels, there is often perceptible a general neglect and disregard of cleanliness of body and of clothes and beddings and a want of tidiness of the rooms they live in. Baths perfunctorily taken, teeth not properly looked after, food hastily gulped, brain over-worked, exercise avoided and hours of sleep cut down for the sake of study or amusement and even calls of nature not timely attended to,—these are some of the common occurrences of student life in Bengal and require to be remedied. You should remember that the habit of cleanliness is not instinctive but has to be acquired. The parents should inculcate this good habit in their children from a very early period, so that it becomes second nature with them as they grow older.

Baths.—Our boys do not properly understand the great physiological function of the skin as one of the main drains of the body for the removal of waste and poisonous matters which are constantly accumulating within it. They ought to spend more time over their baths. In a hot country like ours, a morning and an evening bath should be regularly taken (except in the cold weather) and soap should be freely used to remove all grease and dirt from the skin, so that its pores remain open and patent. Cold baths are invigorating and

refreshing and they are best for all people except for those of delicate constitution.

Teeth.—The teeth do not receive that amount of attention which they deserve. We, Indians, are generally credited with having rows of sound teeth, but I am afraid that, owing to our neglect, we are soon going to lose this credit. The recent enquiry by the University Committee shows that about 33 per cent. of our students suffer from defective teeth. This, I should say, is a bad record for young people and every effort should be made to remedy the defect. A good set of teeth is not only a sign of beauty but is an absolute necessity for good digestion and, therefore, for preservation of health. Neglect of teeth give rise to toothaches and gum boils which are extremely painful ailments; loss of teeth and pyorrhæa follow which lead to serious digestive and intestinal disturbances.

Teeth should be cleaned regularly with proper materials (tooth-powder, brush or sticks) twice a day and also after finishing each meal. Too much chewing of *pan* (betel leaves) is bad for teeth and is a dirty habit. Those who are accustomed to take *pan* should take it moderately.

Spitting.—Spitting here, there and everywhere is a filthy and repugnant habit. It also favours the spread of that terrible disease known as *consumption*. Spittoons containing a little phenyle should be kept at convenient places to receive all spittle.

Smoking.—If any of you has contracted the bad habit of smoking, I would earnestly advise you to give it up at once. Smoking in the growing period of life affects injuriously some of the vital organs, and if persisted in, may produce permanent organic mischief. It is a great drain on your purse too.

I need not say anything about alcohol. Its pernicious effects are well-known. Fortunately, our student community is practically a stranger to the use of alcohol.

Meals.—Food is eaten with much haste by our young men. It is looked upon by them as a business that had best be finished as soon as it is begun and as a rule, they do not seem to enjoy

their breakfast and dinner. The function is discharged as a matter of duty and is not looked upon as an enjoyment of life. The evil effects of such quick eating are indigestion, ill-health and much waste of good money. Food should be slowly taken and well-chewed. This greatly aids digestion, helps assimilation and throws less labour on other organs. It prevents waste and satisfies the appetite with a much smaller quantity of food than if it is quickly swallowed.

An interval of five to six hours should be allowed between one full meal and another in order to allow the system to properly digest what has been taken. We, Indians, eat our food with the fingers which should be washed thoroughly before taking the meal. The dining room should be dry, clean, well-lighted and well-ventilated, free from bad smell, dirt and flies. Dust and flies frequently carry infection to food. There should be regular hours for meals and all boarders should sit together and take their food while it is hot. Cold and stale food is bad for digestion and may become infected.

Clothings, beddings and bed-room.—You should pay greater attention to your clothings and beddings in respect of cleanliness. They should be frequently washed with soap and water and more often sunned and aired. The room in which you live should always be kept neat and tidy and all things there should be in order and each in its proper place. It should be free from dust, dirt, cobwebs, and flies. The doors and windows should be kept open day and night—only draughts are to be avoided. There should be no over-crowding. For each boarder, a floor space of 60 square feet at least should be provided in the bed-room.

Study.—Work hard but work regularly and methodically. If you adopt method in your work, you will not have to over-work yourself during the examination time and your success will be assured.

Physical Exercise.—I have already told you that physical exercisc in some form or other is good for all persons at all

ages. It is as indispensable as food and sleep. You should shake off your apathy and take kindly to outdoor games or other kinds of exercise. It will give you health, strength and power of endurance and invigorate your mental faculties. You all know the Latin proverb which says that a sound mind lodges in a sound body.

Recreation and Sleep.—You require rest after work and good and sound sleep at night. Seven to eight hours' sleep is quite enough for people of your age. You must not grudge the time you spend over these physiological needs of the body. Light reading, recitations, music and other innocent recreations give relaxation to an over-worked body and mind, but you must avoid reading such literature and attending such entertainments as are likely to poison your young and innocent minds.

V. BRAHMACHARIYA.

You must not allow bad or impure thoughts to dominate your mind; you should always try to displace them by pure and ennobling thoughts. The great secret of real success in life, physical, intellectual, moral and spiritual, lies in the practice of *Brahmachariya* (self-control) and our scriptures enjoin that it should be observed in all its minute details in our student-life. *Brahmachariya* is the precious heritage left to us by the sages of ancient India. It made them great in knowledge, in virtue and in power. We have fallen from the high standard and that is the cause of our present sufferings. Banish all impure thoughts, give up all vicious habits peculiar to student-life, exercise control over your passions and desires, lift up your hearts to prayer to God,—then each of you will be a young *brahmacharin* in the true sense of the term. Then only you will yourself be great and you will help in the formation of a great and mighty nation.

CHUNILAL BOSE

THE ABBASIDS IN ASIA

While Muwaffiq was occupied with other wars Ahmad Ibn Tulun (whose appointment as Governor of Egypt we have already mentioned) attacked Syria and took Damascus, Hims, Hamah, Halab, Antioch and Tarsus. Thence he bent his steps to Mesopotamia, captured Rakka and Hauran, and would doubtless have proceeded farther, had it not been for an insurrection in Egypt which was headed by his son Abbas and which compelled his immediate return home. Ahmad had clearly realized that to be independent in Egypt he must hold Syria too. It was with that end in view that he had seized, and promptly seized, a favourable opportunity. This was all the more imperative, as he clearly foresaw that the Caliph would depose him, and all too soon. But the insurrection of his son kept him in Egypt for several years.

Reading the signs of the times, Ahmad divined that Muwaffiq—relieved now of the pressure from the rebels—would soon direct his whole strength against him. To meet and, if possible, avert this danger, he invited the Caliph, who was jealous of his brother because of the powers that he possessed and wielded, to repair to him and to take over, under the protection of his army, the reins of Government. Mutamid accepted the offer, and a day was fixed for him to join the Egyptians at Rakka; but the scheme was divulged, and at the instance of Muwaffiq the Caliph was detained at Mosul and eventually brought back to Samirra. Ahmad made capital out of this incident, and declared Muwaffiq a usurper who had used violence against the Caliph and, for that reason, was not fit to be recognised as his successor to the throne. Muwaffiq, on the other hand, compelled his brother Mutamid to have Ahmad proclaimed a rebel from all the pulpits of the Caliphate.

More painful than the excommunication was the loss of Rakka and Tarsus for Ahmad. The former was due to a popular rising against his prefect; the latter to the betrayal of his own Governor, who deserted to Muwaffiq. Once again Ahmad went to Syria, fell down and died (May, 884).¹

Under his son and successor, Khumarawayh, Syria was soon lost. His intrepid general Said beat Mutadid, the son of Muwaffiq, in Palestine, and re-occupied the town. Thence the theatre of war was transferred to Mesopotamia, where Khumarawayh maintained himself until the death of the Caliph.

In the next reign the pleasure-loving Tulinide sacrificed his independence to the vain glory of being the father-in-law of the Caliph. He bound himself down to an annual tribute of 300,000 *dinars*. After his death the rule of the Tulinides rapidly declined (896 Feb.). His eldest son Jaish perished in a conspiracy the very same year. His second son Harun was a mere plaything of his generals and *Wazirs*, who vied with each other for the friendship of the Caliph. In 899 he had to evacuate Mesopotamia, and to surrender the border fortresses, and to bind himself down to pay a still higher tribute. Under Al-Muktali even Syria was torn away from him, and when in Egypt he tried to oppose the army which the Caliph sent against him he lost his life in a mutiny of his own troops (29th Dec., 904). His uncle Shaihan, who took over the chief command, had to withdraw to the capital and surrender after twelve days—a portion of his troops having gone over to the enemy. Henceforward, until the rise of the Fatimides, Egypt received its governors, as before, from the Caliphs. These governors soon destroyed the beautiful mosques and palaces at Fostat and Al-Qahera which Ahmad and Khumarawayh had built—as also other useful institutions which their beneficence and bounty had set up throughout the country.

¹ Lane-Poole, *Moh. Dynasties*, p. 68.

More greedy and grasping, more bold and adventurous, than the Tulinides, were the Saffrides. Unlike the Tulinides, they were not satisfied with the undisturbed possession of a province, but aimed at the Caliphate itself. We have noticed already how, under *Mutaz* the Saffaride, Yaqub Ibn Laith had been acknowledged as Governor of Sijistan and Mekran. Mutamid, fearing that he might again attack Fars, conferred upon him the governorship of Balkh, Tokharistan and Sind. Yaqub led his troops to the North and the North-East, and advanced on the one hand as far as Balkh and on the other Kabul, where he took possession of the hoarded treasures of the Princes of Kabulistan. Thereupon he occupied Bost, Herat and some other places belonging to the Tahirides—he even captured and occupied Neshapur itself—where he made the Tahiride, *Mohamed Ibn Tahir*, prisoner, and thus ended the rule of the Tahiride Dynasty over Khorasan. He then invaded Tabaristan, and on his return compelled the Prefect of Rvi to surrender Abdullah Ali-Sinyan who, on his return home from Kabul, disputed his authority over Sijistan. In the following year he invaded Faristan, where the rebel Mohamed Ibn Wasil had maintained himself against the troops of the Caliph commanded by Musa Ibn Bogha. He put Mohamed to flight and occupied the most important places of this province. In the year 875 he advanced to Ahwaz, although the Caliph was prepared to acknowledge him Governor of Fars, Khorasan and Tabaristan, but could not possibly transfer to him the unquestioned rule over all the countries between Karun and Oxus. The Caliph, therefore, publicly declared him a rebel and a usurper, and summoned all the available troops to defend the capital, for already Wasit was taken and Yaqub's troops were only a few miles off Baghdad.

Yaqub gave bloody battle to the troops of the Caliph—the centre of which was commanded by Muwaffiq—and nearly won the day, when fresh re-inforcements arrived

which decided the wavering issue, and compelled Yaqub to withdraw. Yaqub could not very well continue the war in the West any longer; for Ahmad Ibn Abdullah, an ally of the Tahirides, rose against him. Yaqub tried in vain to subdue and supplant this formidable opponent. But, despite the thickening difficulties, Yaqub declined the Caliph's offer of peace, and maintained himself in Fars and Khuzistan until his death in June, 879. And yet, when he lay on his sick-bed and had before him a sword, a loaf of bread and some onions, he said to a messenger of the Caliph "If I die, thy master will have peace from me. If I recover, this sword will decide between us. Either I shall conquer and avenge myself or be defeated and live, as in the days of yore, content with bread and onions."

Less ambitious and power-loving was Amr, brother and successor of Yaqub. He submitted to the Caliph, and was content with the fiefs which Yaqub had administered and ruled with undisputed sway. But no sooner did Muwaffiq feel himself free by reason of the death of the Tulunide and his victory over the Alides, than he called upon Amr to vacate Fars and Khorasan, though he allowed him to continue as Governor of Kirman and Sijistan. Amr declined to obey. He was first cursed from the pulpit, and later conquered, and driven away from Fars, Kirman and Khorasan.

The Caliph owed the victory in Khorasan to the Samanides, who soon became as dangerous to the Caliphate as the Saffrides had been before. By the Samanides we mean the princely family of Asad Ibn Saman who, ever since the days of Mamun, had held the highest offices in Transoxiana. Nasr, a grandson of Asad, was Governor of Bokhara. He formed an alliance with Rafi Ibn Harthama, who on behalf of the Caliph and the Tahirides fought against the party of the Saffrides.

(To be continued).

S. KHUDA BUKHSH

THE RIGHT FISCAL POLICY FOR INDIA

A careful examination of the theories of free trade and protection brings us to the conclusion that the tariff problem admits only of relative solution. In other words, the fiscal policy which ought to be adopted by a country at a particular moment should be appropriate to its peculiar circumstances at that moment. Let us now consider the circumstances in which we find India at the present day.

A cursory glance at the foreign trade returns of India brings home to the mind of the observer the significant fact that the bulk of her imports consists of manufactured goods, while raw materials constitute much the greater part of her exports.¹ This is an unnatural state of things, and its consequences are extremely harmful. The imports are what are technically known as consumers' goods, while the exports consist mainly of producers' goods. This distinction is a matter of great importance. As things are, the imported goods are consumed exactly at the value shown in the importation statistics. If, on the other hand, the imports were to consist of unfinished articles, their value would be greatly enhanced by the industry of the country before they became fit for consumption.² The present situation has another drawback. The exportation of agricultural products means the sending away of the soil. This tendency towards the diminishing fertility of the soil can only

¹ The classification adopted in the Government returns is illogical and misleading. In order to form a correct estimate of the character of India's imports and exports, the bulk of the goods shown under the head "Food, Drink, and Tobacco" ought to be added to the list of manufactures in the former case, and to the list of unmanufactured products in the latter. Thus calculated, manufactures represent over 90 per cent. of the total imports; while manufactures and raw produce represent about one-third and two-thirds respectively of the total exports.

² Vide Grunzel, *Economic Protectionism*, p. 133.

be checked by the development of local manufactures.¹ The growth of manufactures is also necessary for affording a greater diversity to the occupations of the people. A purely agricultural country, dependent on the mercy of the monsoons, must always remain subject to periodical visitations of the spectre of famine.² Besides, agriculture is not a sufficiently remunerative occupation, and a people devoted almost exclusively to it can never hope to make any great progress in material civilisation.³

But the worst evil of the present system is to be found in its effect on the character of the people. A community engaged in agriculture is generally found to lack breadth of outlook, while industrial and commercial occupations have a tendency to widen the vision of those engaged in them, to develop initiative and enterprise, and to foster a spirit of freedom. As Ranade said many years ago, "The political domination of one country by another attracts far more attention than the more formidable though unfelt domination, which the capital, enterprise and skill of one country exercise over the trade and manufactures of another. This latter domination has an insidious influence which paralyses the springs of all the activities which together make up the life of the Nation."⁴ The magnitude of the evil becomes apparent when the fact is recalled that the political status of a country depends very largely on its economic position.

The solution of the problem can only be found in industrial development. But in order that the trouble and

¹ J. S. Mill admits that this argument deserves attention on account of the physical truth on which it is founded but he is of opinion that it is not relevant to the question of Protection.—*Principles of Political Economy*, Bk. V, Ch. X, 1.

² The Famine Commission of 1880 observed, "The failure of the usual rains thus deprives the labouring class, as a whole, not only of the ordinary supplies of food obtainable at prices within their reach, but also of the sole employment by which they can earn the means of procuring it."

³ The authors of the Report on the Indian Constitutional Reforms correctly appreciated the situation when they remarked, "The economics of a country which depends to so great an extent as India on agriculture must be unstable." P. 210.

⁴ *Essays on Indian Economics*, Second Edition, p. 105.

expense involved in industrial effort may not go in vain, it is desirable, at the outset, to consider whether or not India satisfies the condition essential for the successful development of manufactures. Such conditions are of two kinds, namely, natural and acquired. As for the natural conditions, India has an abundance of natural resources and a large population. The former is the most important requisite of production, and the latter not only ensures the supply of labour, but affords a market for the goods produced by industry. In respect of the acquired factors, however, India is in great defect. Skilled labour is scarce, and industrial expansion is considerably hampered by the absence of technical knowledge on the part of the children of the soil. The supply of capital is inadequate. The people lack enterprise, and business organisation is far from perfect. These defects, however, are not irremediable. Technical knowledge and skill can be acquired by education and practical training. Indigenous capital has already begun to overcome its shyness, and development of banking facilities will go a long way towards removing this deficiency. Educated men are now beginning to engage in commerce and industry, and experience will before long enable them to develop the proper sort of business organisation.

Artificial conditions are in the present age becoming more and more decisive as factors in production. But acquired advantages are not the monopoly of any race or nation, and in its possession of natural advantages India has a great superiority over many other countries. The industrial backwardness of India is due, however, in part, to the causes mentioned above, and partly to its political environment. The State in India has in the past not only failed to foster industries, but has actually hindered their development. Even now, the people believe, rightly or wrongly, that in the industrial struggle, the forces of the State are arrayed against them. A feeling of helplessness has thus been induced in the community. To remove the feeling of despair from the minds of the people and to restore their

confidence in their own selves, it is absolutely necessary for the Indian Government to adopt a policy of active encouragement of industries. Such a policy will give a feeling of security to the industrialist, afford a stimulus to individual enterprise, and call into being the necessary capital and organisation.

In every civilised country, the industries receive the fostering care of the State. The industrial greatness of the United States and Germany was due, in no small measure, to the efforts of the State. In England also, industry and trade received considerable assistance from the State in the earlier stages of their development. It is true that when these had become well developed, they were able to do without the help of the Government, but now that some difficulty has arisen, State aid is being once more invoked and ungrudgingly offered.¹ What is needed most in India at the present moment is an enlightened system of protection, by which should be understood all those measures which will tend to promote the economic interests of the country.² These measures may be either positive or negative. Of the positive measures, the most important appear to be the granting of bounties, subsidies and concessions in suitable cases, the establishment of technical colleges, the provision of credit facilities, the proper regulation of railway and steamship freights, the collection and dissemination of useful information regarding industry and trade, and the local purchase of stores.

A tariff is only one form of protection. Although it is merely a negative measure, it is regarded in most countries as the most effective means of promoting a national economic policy. Freedom of trade and industry ought surely to be the

¹ *Fide* Report of the Committee on Commercial and Industrial Policy after the War.

² The authors of the Montagu-Chelmsford Report observed, "English theories as to the appropriate limits of the State's activity are inapplicable to India." And again, "We are agreed therefore that there must be a definite change of view; and that the Government must admit and shoulder its responsibility for furthering the industrial development of the country.....Though these are serious difficulties they are not insuperable; but they will be overcome only if the State comes forward boldly as guide and helper." P. 213.

ultimate goal for India, as for all other nations. But, in the abnormal circumstances in which she finds herself at the present moment, India cannot be expected to derive the same advantage from free trade as the industrially advanced countries. A departure from the present economic policy thus seems to be not only justifiable, but absolutely necessary. Competition of the right sort, no doubt, is good for industry and trade in a state of health and vigour. But it would be extremely difficult, if not impossible, for the immature and undeveloped industries of India to stand and survive the competition of the mature and fully-developed industries of countries which have had a long start. The most advanced nations often impose restrictions in the interests of children and weak persons. Freedom of contract, in the case of young children, is described by political philosophers as "another name for freedom of coercion." On the same analogy, it would be unreasonable to expect the young industries of India to be able to make proper use of their freedom.

If success is to be achieved, industrial conditions in India must adjust themselves to modern requirements. In fact, the industrial structure in India will have to be built anew. But this cannot be accomplished in a day. The transition from the agricultural to the industrial stage will take time. Some amount of tariff protection is, in the meanwhile, indispensable to offset the temporary lead of the older industrial countries. But there should be discrimination in the application of the principle of protection. An all-round "all-inclusive" protective system cannot possibly be advantageous or beneficial to the country. It is argued by some enthusiastic supporters of a protective policy that an indiscriminate use of protection is necessary in order to create an atmosphere favourable to industrial development.¹ But they forget to count the cost of such a policy or to estimate its probable ultimate gain or loss. The creation of an atmosphere is certainly desirable, but this

¹ See Mr. M. Subedar's Evidence before the Indian Fiscal Commission.

object can be best attained through some form of voluntary effort, such as the *swadeshi* movement. The difference between such a movement and Government action lies in the element of compulsion always involved in the latter, which may, unless proper safeguards are adopted, produce as much harm as good.

While, therefore, infant industries should be maintained at public expense during the period of their education or apprenticeship, we must take adequate care not to allow protection to run riot. Protection ought to be afforded only to such industries as have a reasonable chance of successful development. When the raw material required for a particular industry is available within the country or can be easily obtained from abroad, when there is an adequate supply of labour, and when there is also a ready market at home, there is *prima facie* ground for believing that the industry is suitable to the circumstances of the country. In this view protection will be required in two sets of circumstances, namely, first when an existing industry is struggling against foreign competition, and secondly, when a new industry is established for the sake of an experiment. In the former case, if it is found that the difficulty which the industry encounters does not arise from any natural or inherent disadvantages and that the superiority of the foreign rival consists only in acquired skill or experience, it ought to be assisted by the State. As for a new industry, it is hardly likely that individuals will take the risk attending such an experiment, unless they are guaranteed against possible loss.

The primary object of a tariff is to equalise the conditions of production. But it is not possible to equalise conditions in all industries. It will thus be necessary to discriminate. And great care must be taken in selecting the industries to be protected. The most important among the large-scale manufactures which may be encouraged in the beginning appear to be the following: Steel and iron manufactures, sugar,

glass, paper, leather, rubber goods, vegetable oils, silk and woolen goods, and cotton fabrics of the finer sorts.

Iron and steel goods now occupy the second place in order of importance in the list of India's imports. In 1920-21, the total value of imported goods of this description was $31\frac{1}{2}$ crores. There is no dearth of raw material for these industries in the country. Steel of a good quality is now being turned out by the Tata Iron and Steel Company. During the war, the Company made great strides, but, at present, foreign competition is beginning again to hit the industry rather hard. A few years ago, it was hoped to establish no less than seventeen subsidiary industries in the vicinity of Jamshedpur, but this has not yet been found possible. The Company is, however, still negotiating for the establishment of plants for the manufacture of railway wagons and locomotives, agricultural implements, wire products, tin-plates, enamelled iron-ware, cables, and special steel for reinforcement.¹ Two other Companies are also doing good business, and several more have been projected. The manufacture of steel bars, billets, plates and sections of all kinds is increasing. The engineering workshops in India are trying to compete with foreign manufactures in structural steel work and simple steel engines of all kinds. Jute mill machinery will shortly be produced at Jamshedpur and tea machinery at Agartala.² As steel is a 'Ray' industry, it deserves fully to be placed on a sound footing by means of protection.

Sugar, during the war period, used to rank second in the list of India's imports. In 1920-21, however, there was a fall in the quantity, which was due to high prices. But, even then, the total value was no less than $18\frac{1}{2}$ crores. India is the largest sugar-producing country of the world. The methods of extraction and preparation are, however, extremely

¹ Ainscough, *General Review of the Conditions and Prospects of British Trade in India, 1920-21*, p. 60.

² *Ibid.*, p. 75.

primitive, and the competition of foreign sugar has resulted in a progressive decline of cane cultivation. Sugar-cane is one of the most paying crops, and it occupies an important position in maintaining agricultural prosperity. In order that the industry may thrive, it will be necessary to replace the antiquated and wasteful methods which now prevail by up-to-date and scientific processes. But as some time must elapse before this can be done, tariff protection and other measures of encouragement must be afforded. A high rate of duty will, of course, prove a hardship to consumers, but as refined sugar is not an article of necessity for the poorest classes of the population, its incidence will not be very widespread. In the opinion of the Sugar Committee, it is perfectly practicable to produce the whole amount of sugar required for consumption in India, and she may even look forward to the time when she will again become an exporting country.¹ The suggestion of the Committee that a Government Pioneer Factory should be established in Upper India deserves consideration.

There is a great demand for glassware in the country. Glass is a bulky article, but the value of the imports was no less than 4 *crores* in 1920-21. The raw material of glass is nothing but clay of a particular kind, which is available in abundance in the country. There is no reason, therefore, why this manufacture should not prove a success in India.

The raw material for making paper is available in the country in various shapes, such as *sabai* grass, bamboo, and several varieties of wood. In 1920-21, the imports of paper and paste-board amounted to over 7½ *crores*. About one-third of the total consumption is now produced by the Indian mills. If the industry is properly encouraged, it will be quite possible for India to produce not only the whole quantity of paper required for use in the country but also for export to foreign countries.

¹ Report of the Sugar Committee, pp. 9-10.

In the pre-war year 1913-14, the value of exports of raw hides and skins was over $12\frac{1}{2}$ *crores*. It dwindled down to $5\frac{1}{2}$ *crores* in 1920-21. This fall was due in part to the growth of leather manufactures in the country, but mainly to the preference of 10 per cent. granted to the United Kingdom and the Dominions over foreign countries in the rate of the export duty. The chemicals required for the industry are produced locally. With a proper organisation, India ought to be able to convert large quantities of her hides and skins into leather and also to manufacture boots, shoes, and various other kinds of leather goods which are now obtained from abroad.

The importance of rubber manufactures is rapidly growing in India. In 1920-21, the value of imports of this class of goods was no less than Rs. $2\frac{1}{2}$ *crores*. During the same year, India exported raw rubber of the value of over $1\frac{1}{2}$ *crores*. The production of rubber can, however, be vastly increased. If rubber manufactures are started in India, there will thus be no lack of raw material, and the home market for the finished product is sure to grow steadily in future. A rubber factory has recently been started in Ceylon, and it is hoped some factories will soon be started in India. But without protection, they will hardly be able to stand on their legs.

Vegetable oils are a species of industry which deserve to be fostered. India's consumption of vegetable oil and cake is large, and is likely to increase with the growth of industries like soap, paints and varnishes. She exports huge quantities of oil seeds every year. In 1913-14, the value of the exports of oil seeds was $24\frac{1}{4}$ *crores*, but in 1920-21, it declined to $16\frac{1}{4}$ *crores*. The entire quantity of oil seeds ought to be converted into oil and cake, and the oil should be refined, before any portion of it is exported. It is a strange anomaly that India, with her great resources of this commodity, should obtain vegetable oils from abroad.

Silk and woollen goods require some assistance from the State. At present, considerable quantities of both these kinds of

goods are imported into India. In 1920-21, the value of the imports of silk piece-goods was Rs. 4 *crores*, the bulk of which came from Japan. There are a few silk factories at present working in India, but many more may easily be started. The imports of woollen fabrics amounted last year to over 5½ *crores*. Before the war, Germany used to supply the bulk of the cheaper kinds of woollen goods, while England sent the finer qualities. For a few years, England was almost without a rival in this trade, although Japan contributed a small proportion of the total supply. But German goods are likely again to flood the Indian market before long. The Indian mills are turning out excellent qualities of woollen goods of various sorts. The most important of these mills are the Lalimli of Cawnpore and the Dhariwal Mill in the Punjab. Carpets and rugs of excellent qualities are also produced in different parts of the country, while the hand-made shawls have still retained their excellence. The chief difficulty experienced by the woollen industry is the want of raw material of a good quality. But wool is being imported from other countries, and the industry seems to have a great future before it.

Lastly, we come to cotton manufactures, the largest mill industry of India. The natural conditions in India are quite favourable to the growth of the cotton industry. The local supply of cotton is abundant, and there is a ready market close at hand. Although a considerable part of the demand for cotton goods is met by the local produce, yet their imports amount to nearly one-third of the total imports of the country. In 1920-21, imported cotton goods were valued at Rs. 102 *crores*, and exceeded any other three classes of imported goods taken together. It is small wonder that, in men's minds, protection has thus come to be identified with the use of *swadeshi* cloths.¹ As a matter of fact, only a small

¹ This was an abnormally large figure, and, in 1921-22, the value of imported cotton goods decreased to Rs. 60 *crores*, which is about the normal figure. Even in this year of boycott and trade depression, the imports of cotton goods exceeded any other single import head.

percentage of the imported goods compete with local produce of a similar character.¹ The coarser kinds of cotton goods are thus able to withstand the competition of Manchester. If the owners of existing mills show greater enterprise, and if some more mills are started, it will be quite possible in the near future to manufacture, within the borders of the country, the entire quantity of wearing apparel required by the poorer classes of the population. The absence of a local supply of long-stapled cotton at present offers an obstacle to the manufacture of finer fabrics, but the successful experiments which have been made in certain parts of the Punjab lead us to hope that this difficulty will soon disappear. This branch of the cotton industry fully deserves to be encouraged. While no protection is required for the coarser kinds of cotton goods, the finer qualities will perhaps need protection for some time to come.

The question of yarn is not free from difficulty. It is highly desirable that Indian mills should produce yarns of the higher counts, and a protective duty would be helpful in this regard. But, on the other hand, as yarn is an earlier stage of manufacture, a duty levied on this article, is likely to prove harmful to the later stage, namely, the manufacture of cloth. On the whole, the balance of advantage would seem to lie in admitting yarn free or in levying only a small duty on yarns of the higher counts, until the mills in India are fully equipped to take advantage of a comparatively high rate of duty.²

¹ Mr. A. C. Coulbrough points out that in 1920-21, "the total quantity of piece-goods consumed in India was 490 crores of yards. The amount of piece-goods of similar character to those produced in India was less than 41 crores of yards." He also shows that 75 per cent. of imported piece-goods are non-competitive. See *Notes on Indian Piece-goods Trade* (Bulletin No. 16).

² Mr. Ainscough points out that, although there has been a steady increase in the production of yarn during the past three years, the amount of raw cotton consumed has steadily decreased. This he takes to be a clear proof that the mills are tending to spin finer counts. (Report for 1920-21, p. 57.) But, Mr. Ainscough does not apprehend a serious loss in the whole of the cotton goods trade of England. He says, "My personal opinion is that, on balance, our trade with India will continue to increase. The trade we lose in coarse grey goods will be more than made up by increased shipments of the finer cloths due to steady advance in the prosperity of the country." (P. 69.)

Jute manufactures stand on a footing different from other industries. They have already proved a success in India. There are at present seventy-five jute mills in Bengal, and exports of manufactured jute amount annually to over Rs. 50 *crores* in value. Before the war, more than one-half of the total exports of jute consisted of the raw material. But the proportion has now considerably diminished. If more mills are established, it will be possible to manufacture the whole of the raw jute within the country. This industry, therefore, does not seem to stand in need of protection.

Industries of a comparatively small size ought also to be protected. Cement, pottery, soap, paints and varnishes, cutlery, matches, and stationery articles and classes of goods of which the raw material is available in the country, either wholly or in part, and which have a ready market at home. If they are properly aided, these industries will add to the productive power and wealth of the country. As the industrial development of the country proceeds, many new industries will also claim the attention of the State.

Chemicals, machinery, and railway plant present some difficulty. The growth of chemical industries is of the greatest importance to the general advancement of the country. They thus deserve encouragement at the hands of the State. But as the price of chemicals enters largely into the production of various kinds of manufactures, these latter are sure to be adversely affected by any import duty that may be imposed on chemicals. A bounty in such a case would seem to be a more suitable form of assistance than tariff protection. Any way, the question will require very careful handling. The same thing may be said of machinery. It would be hardly right for India to continue to depend for an indefinite period on foreign countries for the supply of machines for her manufactures. If she has to take her place among the industrial nations of the world, India must manufacture her own machinery. For such a purpose, India has ample raw material.

But a duty on machinery will increase the equipment charges of a factory, and thus prove a handicap to the growth of industry generally. As for railway plant and stores, any duties levied on them will fall on the entire community, and, will, besides, tend to retard the development of transport which is so essential to industrial expansion. This difficulty can, however, be partially solved by the local purchase of stores to the utmost extent possible.

These, indeed, are instances of the possible conflicts of interest, which may arise from time to time between different industries. It is not unlikely to happen, on some occasions, that producers of a raw material or of an intermediate product will ask for protection, while manufacturers will oppose them. It is even possible that tariff protection afforded to some industries may result in the crippling of others. The danger of unintelligent interference with industry is always present in a protective system. The details of a policy of protection will thus be no easy matter to settle. But if the earnestness and independence of the Legislature and the honesty and foresight of officials can be ensured, the difficulties will not prove insurmountable. Of course, the general principle which will guide the fiscal authorities in deciding between the rival claims of different industries, will be the balance of advantage to the community as a whole.

The question of rates is important. Some of the classes of goods mentioned above are already subject to duty. But as the present rates were fixed with sole regard to revenue, a reconsideration of the whole matter will be necessary when a protective policy is decided upon. And the determination of the rates will require the exercise of great care and caution. They should be high enough to afford protection, but not so high as to unduly or unnecessarily add to the cost of living. The existing general rates may continue for revenue purposes, unless it is found desirable, on financial grounds, to enhance or reduce them. But special rates should be fixed for purposes

of protection. As a rule, a protective duty of 20 or 25 per cent. ought to be sufficient. In exceptional circumstances, however, higher rates may be justifiable. In this connexion, a serious drawback, which is characteristic of high duties, must not be lost sight of. They always have a tendency to encourage smuggling and put a heavy strain on the honesty of officials. In the interests of protection, it will perhaps be found necessary to expand the free list. All raw materials of industry should be allowed to enter the country duty-free.

Market is one of the most important requisites for the successful development of industry. The primary aim of the future tariff policy of India will thus be to secure the home market for the home produce. A carefully adjusted protective system will enable her to put an end to the present abnormal state of things. But an indiscriminate increase of customs duties will produce harmful consequences. It will not only destroy India's external commerce, but prove harmful to her social as well as her economic life.

While it is necessary to modify the present position of too great dependence of India upon England, it is neither possible nor desirable for her to attain absolute economic independence. We cannot wall ourselves in with high protective tariffs, and the attempt to do so is sure to end in disaster. And this will be neither economically good, nor morally justifiable. Isolation would lead to stagnation, which in its turn, would result in degeneration. Besides, inter-dependence of all nations is a higher ideal than economic self-sufficiency. If we look at the question from the practical stand-point, we cannot resist the conclusion that the days of self-containment are gone, and are not likely to return. With the rapid development of means of communication, the world is fast becoming one economic unit. It should also be remembered that the substitution of domestic production for imports is not necessarily a national gain. The fostering of some industries

may entail an unnecessarily heavy burden on the community without securing a corresponding advantage to it. In such cases, protection would mean sheer loss to the nation. The best thing for India to do will, therefore, be to concentrate her energies on the production of such articles as she will find it possible to make, under the changed circumstances, at less cost and with greater efficiency than other countries, and to import those articles which she can buy cheaper than make at home. It is not likely that, for at least some time to come, she will find it advantageous to embark upon the production of goods involving secret processes, or requiring exceptional technical skill or the use of highly specialised machinery, such, for instance, as synthetic dyes, delicate scientific instruments, and watches.

Each industry seeking protection must thus establish the validity of its claim. Protection should begin only when a particular industry is fully equipped to take advantage of it. And it should be continued only for a responsible period, and not indefinitely. As soon as the protected industry is able to stand on its legs, or it is found that it has no chance of proving a success, protection should be withdrawn. The exact period for which protection may be afforded will, of course, depend upon the nature of the particular industry and other circumstances. But fifteen years would seem to be a reasonable period in most cases. If, after the lapse of the specified number of years, it is found as the result of careful examination, that the industry has made satisfactory progress, but that some more time is needed to place it on a footing of stability, the period may be extended. At the end of the term of apprenticeship, every protected industry should be allowed to breathe the vitalising air of freedom. Competition will then give it strength and vigour. To continue protection after the need for it has ceased will be to encourage indolence and inefficiency. A policy which seeks to keep the industries of the country in perpetual tutelage can only result in decadence and

retrogression. The danger, which Professor Smart points out,—“once an infant, always an infant,”—is real, and must be guarded against. We want in India strong, healthy industries, not perpetual infants. The great evil of a protective system is the growth of vested interests. This can only be prevented or checked by the formation of a wide-awake public opinion.

The temporary character of a protective duty should be particularly emphasised when the article protected is one of the necessities for the poorer sections of the community. The immediate tendency of protection is to affect in almost entirely opposite directions the interests of producers and consumers, although, in the long run, their interests are identical. Of course, producers are also consumers, and consumers, generally speaking, are producers of some sort or other. Both these classes are thus, ultimately, benefited equally by an improvement in the general well-being of the community. But in regard to particular commodities it may frequently happen that while the producer will derive an unconscionable gain from a protective duty, the consumer will suffer an undeserved loss. It will be the duty of the State always to hold the balance between all parties. On some occasions, it may even be necessary to take into special consideration the interests of the consumers, who are generally the weaker party. It is of the utmost importance to ensure that the tariff policy of the country is determined for good of the community as a whole, and is not dictated either by the manufacturers of England or by the mill-owners of India.

While protection should be temporary in most cases, it would be wrong to regard protective policy as a “necessary evil.”¹ Most people would rather be inclined to consider it as a necessary good, for protection is advocated in India chiefly

¹ It is interesting in this connexion to recall the opinion of Kobatsch, who held that protective measures “are a suitable means of guarding the interests of a particular national economy; they are a necessary evil of historic origin which will disappear as it has come when it has lived its day.”

as a policy of national reconstruction. This, however, is a more or less academic question.

The arguments which have been advanced in favour of withdrawing protection at the earliest possible moment do not, of course, apply to industries which are essential for purposes of defence, or which are of vital importance to the economic life of the people. Such pivotal, or 'key' industries will require continued assistance.

Special protection may sometimes be necessary against foreign goods favoured by such measures, as dumping, bounties, subsidies, or transport concessions. Measures like these often have for their object the supplanting of local produce by foreign produce with the aid of an artificial advantage. In order to equalise the conditions of production, it may be desirable in such cases to levy a duty on the imported product. But the mere fact that a particular country affords protection to its industries will not be enough to justify the imposition of protective duties in India. These measures may, in fact, be either benignant or malignant. When the object is merely to encourage a young industry, there is no cause for complaint. A case of dumping arises when goods are sold in the Indian market below their cost prices or at prices lower than those at which the goods are currently offered in the country of manufacture. Dumping may, however, be accidental. When the surplus goods of a foreign country are sold at low prices at a time when the home market is in a depressed condition, no objection can be reasonably taken to such sale. When, however, a policy of dumping is resorted to with the deliberate and persistent object of killing an Indian industry, a protective duty would be justifiable as a measure of defence. Such dumping, as has been rightly observed, produces a feeling of insecurity in the corresponding industry of this country, which diminishes the incentive to development.

Anti-dumping measures have been adopted in various countries. In the United States, it is unlawful for any person

to import dumped goods into the country. The Tariff Act, 1907, of Canada provides for the levy of a special duty on dumped goods.¹ In India, a special 'anti-dumping' duty, equivalent to the difference between the selling price of the article in this country and its fair market value in the country of origin, may very properly be imposed in order to counteract the evil effects of a foreign dumping policy.

The influence of a protective policy on prices is a matter which should be carefully considered. It is mainly through prices that a protective duty affects the foreign, as compared with the local, produce. The principal use of a tariff is, in fact, to secure differential advantages in markets. But it is extremely difficult to estimate beforehand the possible effect of an import duty on the price of the article on which it is levied. A very small duty may sometimes have no effect on prices at all. But, as a rule, when an import duty is imposed on a commodity, the tendency of the price is to rise by the full extent of the duty. But the actual rise in price is seldom equal to the amount of the duty. The imposition of the duty disturbs the equilibrium of demand and supply, and the price at which a fresh equilibrium is established depends, first, upon the elasticity of the demand, and, secondly, upon the elasticity of the home production as compared with that of the foreign production. If, as a result of the duty, there is no fall in the demand, or if the home production fails to increase, the whole of the duty appears in the price, and, consequently, the entire burden falls on the consumer. If, on the other hand, the demand tends to decrease, or the supply of the home produce shows a tendency to increase, the rise in the price of the article is less than the amount of the duty. In such a case, the burden is borne in part by the foreign producer who, in order to retain the market, is compelled to curtail his profit. Professor Pigou is right in expressing the view that "a part of

¹ Vide Report of the Committee on Commercial and Imperial Policy After the War. pp. 44-46.

the direct burden of import duties is, in general, shifted permanently on to the foreigners."¹

Professor L. V. Birk, a Dutch economist, draws attention to another side of the question. He says, "The duty, which increases the price at home, will often depress the world-price. The consumers of the importing country, who must now pay import duty, are not able to pay as much for the goods, duty unpaid, as they were before, while the duty has further caused an increase in the quantity in the country itself, which again means a smaller demand on the world market."²

The main object of a protective duty is to secure an increase in the price of the commodity protected, and if the price fails to rise, this object is partly frustrated. It is not, however, wholly frustrated, because the fact that the foreign producer is compelled to work under less advantageous conditions is an indirect gain to the home producer. But whether the rise in price is large or small, there is, as a rule, some rise. Moreover, the increase is not always limited to the prices of the dutiable goods alone. A change in the price of one commodity influences the consumption and, therefore, the prices of other commodities. It is also necessary to determine the effect of protective duties on production costs. If the costs

¹ According to Professor Pizon, this takes place because the ratio of interchange is altered in favour of the taxing country. *Vide Protective and Preferential Duties* p. 23.

Professor Marshall is of opinion that a part of such burden is borne by the foreign producers in the following cases: (1) if one country is the chief consumer of a thing for which another has special natural advantages, a tax on it may cause the exporters to work at barely remunerative prices; (2) when producers in one country have set themselves to cater for the special requirements of another, they will go a long way towards meeting any import duty that is suddenly sprung upon them, until they have made other arrangements for utilising their resources; (3) when a particular brand yields monopoly profits high above the normal, such profits can be unnetted in part.

Mr. J. A. Hobson, on the other hand, holds that "the ordinary notion that 'the foreigner will pay' the import duty, is void of substance. The circumstances under which he would bear some portion of the duty are so rare and so incalculable that no government officials could be safely entrusted with the adjustment of such a tariff." *Taxation in the New State*, p. 134.

² *The Theory of Marginal Value*, p. 257.

of production of protected articles rise along with the rise in their prices, no advantage is gained. But profits can be secured if duties are levied in such a way that production costs may not rise at all or rise to a less extent than the rise in prices.

The rise in prices is temporary or permanent according as the effect of a protective duty is wholesome or otherwise. It may happen that the imposition of the duty will lead to the investment of larger capital in the industry, the adoption of improved methods of production, and the establishment of new factories. In such a case, the increase in the size of the enterprise, securing economies in natural resources, labour, and capital and making organisation more efficient, will reduce production-costs, and the growth of local competition will ultimately bring down prices. On the other hand, it is possible that the protected manufacturers will remain satisfied with the gain secured to them by the duty, instead of exerting themselves to improve the industry. The rise in the price will then tend to become permanent.

When, as the result of the policy of protection, foreign competition is eliminated, the price of the article in question will be determined by competition among domestic producers. It is not improbable that, under such circumstances, the protected manufacturers will combine in order to maintain a quasi-monopoly price. The State will then find it necessary to take prompt action. And one or all of the following courses will be open to it. Protection may be withdrawn as soon as such an undesirable effect manifests itself or some legislative measure may be enacted to declare such combination illegal, or a special tax may be levied on the excess profits of the enterprise. The legitimate object of protection is to foster industries, and not to put large profits into the pockets of manufacturers. Under no circumstances, would the State be justified in taxing the poor to benefit the rich.

A tariff is often described in Europe and America as "the mother of trust," and in so far as this description is correct,

it must be regarded as an evil. But combinations, in themselves, are not undesirable. They often lead to the maximum efficiency of machinery, capital, labour and administration. But when they become monopolies, and their real object is found to be, not the perfecting of organisation, but the regulation of output and prices, so as to earn unconscionably high profits, they must be discouraged.¹

Speaking in a general way, it may be said that protective duties will tend to add to the cost of living. Such disadvantage is likely, however, to be counterbalanced, in part, if not wholly, by an increase in the income of at least some classes of the population, provided the right commodities are selected for protection. The establishment of new industries will increase the demand for labour, and, consequently, wages will rise. This rise in the wages of industrial labourers will affect the wages of agricultural labourers, for there is no hard and fast line of division between the two classes of wage-earners. The middle classes will gain in so far as the managers, supervisors and clerks will be drawn from these strata of society. The remuneration of capital is likely also to increase. Whether or not the increase in the incomes of the different classes of the community will compensate them for the loss suffered by them in the shape of the addition to the cost of living is a matter which time alone will show. But it is probable that capitalists and wage-earners will be benefited by the new policy to a greater extent than the men belonging to the clean-handed or the learned professions.

It is more than probable that the adoption of a protective policy by India will induce foreign firms to establish themselves in the country in order to get the benefit of the protective tariff. The authors of the Report on Constitutional Reforms

¹ The Committee on Commercial and Industrial Policy point out that the attempts made in different countries to establish State control of monopolies have been towards (1) judicial and administrative regulation and limitation, and (2) the securing of

expressed the belief that the protected industries would be "largely financed by foreign capital attracted by the tariff." Mr. T. N. Ainscough, Senior Trade Commissioner for England in India and Ceylon, suggests in several parts of his two interesting Reports that British manufacturers should start branch factories in India. And when British firms establish themselves here, other foreign firms will soon follow suit. It would certainly be wrong to object to such establishment on the mere ground that the owners of these concerns are persons of foreign extraction. A feeling of antipathy towards foreigners ought to be strongly deprecated. But the treatment which Indians have in the past received at the hands of foreign capitalists cannot but make them apprehensive in regard to the future. It has always been the policy of the Government of India not only to maintain an open door in this respect but to attract foreign capital to the country by various inducements. As a result of this policy the profits of industry have left the country to swell the riches of foreign nations. And the only benefit which the people have so far derived from the prosperous foreign undertakings has been, to use the words of a British official, that a certain number have earned wages "in subordinate positions, or by doing coolie work."

Exploitation has, indeed, been the watchword of foreign capitalists. And in this work they have always received the fullest measure of support from the Government. Not only has no stimulus been afforded to indigenous enterprise, but foreigners have been favoured as against the children of the soil. No attempt has been made to conserve the mineral resources of the country, and the well-being of the labourers has, until recently, been sadly neglected. But there is nothing in this to cause surprise. Discussing the different aspects of the question of the export and import of capital in an admirable work, a well-known writer observes: "History shows that capital may be used for purposes of *exploitation* in the

¹ Sir A. Chatterton, *Notes on Industrial Work in India*, 1905.

worst sense of the word. European relations with India in earlier times, and in more recent years with parts of Africa and South America, are particularly flagrant examples. Capital has been employed in numerous instances to drain countries of their resources, to weaken them economically, and to degrade them morally."¹

It was the fear of further exploitation which led ardent patriots like Dadabhai Naoroji and Gopal Krishna Gokhale to hesitate to ask for a protective policy for India. They apprehended that the benefits of protection would be reaped by foreign capitalists, while the poor people of India would be saddled with taxes.² But even more serious than economic exploitation is the danger of political influence.³ It is unfortunately true that the influence of the European mercantile community of India is often exercised in opposition to the political rights and aspirations of the people. One cannot fail in this connection to recall the various acts of oppression committed by the indigo-planters about the middle of the last century in Bengal, and in more recent years in Champaran.⁴

¹ C. K. Hobson, *Export of Capital*, p. XIV.

² Dadabhai Naoroji wrote many years ago: "India sorely needs the aid of English capital; but it is English capital she needs, and not the English invasion to come also, and eat up both capital and produce." *Poverty and Un-British Rule in India*, p. 229.

Mr. G. K. Gokhale said in 1911: "There are two kinds of protection, the right kind and the wrong kind. . . Influential interests, influential combinations, influential parties in England, who can have ready access to the Secretary of State, to whom we have no access, will not fail to take the fullest advantage of the situation, and this huge engine of protection, which is a vast power, will be employed, not in the interests of the people of India, but in the interests of those parties." And again: "The factories which will receive the protection are those run on European lines, and it is no use disguising the fact that most of these factories are in European hands, and the profits go to Englishmen." Mr. Bhupendra Nath Basu also expressed similar sentiments. *Vide Debate in the Indian Legislative Council*, March, 9, 1921.

³ With regard to the political danger arising from foreign capital C. K. Hobson says, "In cases where the borrowing country is weak, lenders may consider that their interests are best served by encroaching upon the political independence of the borrower, and the government policy of the lending State may be formed accordingly." *Export of Capital*, p. XXI.

⁴ For detailed accounts of the indigo troubles in Bengal, see Buckland, *Bengal under Lieutenant-Governors*, and Mitra, *Indigo Disturbances*. Sir Sankaran Nair's Note of

Some incidental disadvantages of foreign capital are also worth noting. Any considerable importation of foreign capital will lead to an increase of what are called the Home Charges, the amount of which is already large. Besides, as such capital will be imported in the shape of goods, the large influx of foreign goods will prove harmful to indigenous industries. Lastly, the organisers of foreign concerns will, more often than not, import the stores necessary for their use from their own countries, thus retarding the industrial development of India.

Adequate safeguards are, therefore, needed to prevent the evils which usually accompany foreign capital. It is necessary in this connexion to remember the distinction between loan capital and entrepreneurs' capital. In the former case, only the interest goes out of the country; in the latter, the profit as well. The history of other countries tells us that it is only in the earlier stages of industrial development that foreign entrepreneurs' capital is considered necessary. As a country progresses in industrialization, every effort is made to replace entrepreneurs' capital by loan capital, which, to use the words of a well-known economist, "leaves in the possession of the debtor country the excess of its earnings above interest, thus operating to enrich the latter more rapidly and at the same time eliminating the unavoidable personal influence of the foreign capitalist on the domestic economic policy."¹ If the want of capital be found to prove a real hindrance to industrial development by indigenous agency, the Government may borrow in Europe or America, and lend to Indian industrialists. The loan market is now becoming more and more international, and as the credit of the Indian Government is good, there ought to be no difficulty in obtaining the necessary amount of loan capital.

¹ Dissent to the Despatches of the Government of India, 1919, gives a short but accurate account of the distress in Champaran.

¹ Grunzel Economic Protectionism, p. 254.

Of course, no one will grudge to pay the legitimate rate of interest for the use of capital, such as is paid by borrowers in other countries. What in India is really objected to is not so much foreign capital, as control of industrial enterprises by foreigners. At present, a substantial proportion of the capital invested in concerns managed by Europeans is owned by Indians, but there are extremely few Indians on their Directorate Boards or in any positions of real responsibility and influence. One remedy for the present state of things is to encourage mixed enterprises which offer equal opportunities to Indian and European capital, skill, and organising ability. The promoters of prospective foreign ventures may be compelled to open their shares to Indians as well as to Europeans. To facilitate the attainment of this object, all flotations should be in rupee currency. Further, the law relating to the formation of Companies may be so amended as to provide for the adoption of a system of proportional representation for the election of the Directors of every Company or to make the appointment of at least one-half of the Directorate Indian in personnel. Similarly, the existing foreign concerns may be partly nationalised. If the foreigners obstinately refuse to come to reasonable terms, a penalty in the shape of an excise duty or sales tax may have to be thought of.

It would be very desirable to avoid all racial questions in matters connected with trade and industry. But this would be possible only when the foreign entrepreneurs who derive so much benefit from their connexion with India agree to accord fair and equal treatment to Indians. Of course, if foreigners set up their skill in the country and impart it to the people, all cause for dissatisfaction will disappear.¹ But if they continue

¹ It is interesting in this connexion to note that Count Okuma advocated the admission of foreign capital into Japan; but he wrote, "In such an event, however, foreign capitalists intending to invest in Japanese industries should recognise the advisability of teaching the working of such industries to the Japanese, for if they insist upon employing officers, engineers and workmen of their own nationalities, it is likely that they will find their undertakings to be failures, or, at the best, to yield only small profits." *Fifty Years of New Japan*. Vol. I, p. 642.

their present policy of domination and exclusion, things are sure to go from bad to worse. Now that India is self-conscious, it is not likely that she will allow her children to remain any longer in the position of hewers of wood and drawers of water, even in fields industrial.

We come now to excise duties. Such duties as are imposed on alcoholic liquors and other intoxicants call for no comment. But countervailing excise duties are of a different character. The theoretical justification for the imposition of such duties is to uphold free trade principles. These duties were originally levied in India to neutralise the protective character of the cotton import duties. The injustice of the measure was so great that it called forth remonstrances from all fair-minded persons, including some high British officials.¹ If a policy of protection is now adopted, there will be no room for excise duties. These duties tend to discourage local production. Besides, their assessment and collection involve a searching enquiry into production and the use of an expensive and cumbersome machinery.

Professor Pigou is of opinion that a somewhat greater advantage would be obtained by a taxing country if a given revenue were collected by a protective import duty, instead of by a customs *plus* excise duty. There is, however, reason to expect that the latter method of raising revenue would in general, have a smaller effect in raising the price of the taxed article, and, therefore, in injuring consumers. But he holds that, on the other hand, a part of the injury to consumers inflicted by protective duties is compensated by a gain to producers within the country, whereas no part of the injury inflicted by a customs *plus* excise duty is thus compensated.²

¹ Mr. C. C. Stevens said in 1894: "It certainly appears at first sight to be driving the doctrine of free trade rather hard to invite the legislature of a country to impose a somewhat troublesome and unproductive tax, in order that its own manufactures may be free from the suspicion of advantage however slight, over imported goods." *Proceedings, Imperial Legislative Council*, 27th December, 1894.

² *Protective and Preferential Duties*, Ch. I.

It is true that the burden of a countervailing excise duty tends to fall on the producer, rather than on the consumer. But the greater part of the cotton excise duty is not countervailing, for the Indian cotton goods which compete with foreign manufactures are only a small fraction of the total of goods on which the duty is levied. In respect of the bulk of cotton goods, therefore, the duty falls on the consumer. The only ground on which an excise duty can reasonably be supported in India is the small measure of protection which it affords to the handloom industry. It would be going beyond the scope of this subject to discuss whether the financial exigencies of the Government would justify the imposition of a tax in itself so objectionable.¹

Export duties stand on a footing entirely different from that of import duties. The burden of an export duty falls on the domestic producer, unless the article happens to belong to the category of a monopoly in which case it is borne by the foreign consumer. Ordinarily, therefore, an export duty places domestic produce at a disadvantage as compared with foreign goods in the foreign market, and thus tends to discourage home production. Such a duty should, therefore, be imposed only if there are special reasons for its imposition. At present, revenue considerations dominate the policy underlying export duties. But here also, a policy of protection, if applied with due care and forethought, may prove useful for purposes of industrial development. Sometimes, it may be desirable to levy export duties on raw materials in order to encourage their manufacture within the country. A duty on hides and skins is a case in point. Unfortunately, however, the

¹ In 1911, Mr. M. B. Dadabhai moved a resolution in the Imperial Legislative Council, urging the abolition of the cotton excise duty. It was supported by the leading Indian members and also by Sir Sassoon David representing an important section of the European mercantile community. But it was opposed by the Government on the ground of loss of revenue and also of possible injury to the handloom industry. *Vide Proceedings*, 9th March, 1911.

present duty of 15 per cent. is coupled with a rebate of 10 per cent., for which there is no justification whatsoever. A strong case can also be made out for an export duty on oil seeds. There is bound to be a continuous demand for this commodity in the home as well as the foreign market, and the local manufacture of the raw material is desirable from many points of view. A home market is more certain and steady than a foreign market, and the conditions in the former are better known than in the latter. A small export duty may, on similar though not equally strong grounds, be suggested on cotton. The retention in the country of bones and other kinds of manure may be secured by means of an export duty, and this expedient would also be justifiable for conserving the mineral resources of the country.

But it would not be advisable to extend this policy too far. A high duty may drive the buyers to look for substitutes for the protected articles. And our unfortunate experience in the past ought to make us careful as to the future. The saltpetre industry was practically killed by the high duty imposed on it. Indigo also suffered to some extent from the burden of the export duty. An addition to the export duty on jute is sometimes advocated in some quarters. Whatever may be said in favour of an increased duty on raw jute, it would be very unwise to increase the burden on the manufactured article. In this regard, the discussion as to whether jute is an absolute, or only a conditional, monopoly appears to be of merely academic importance. From the practical standpoint, it would be safe to regard jute as a temporary monopoly. Efforts are being made in Germany to find substitutes for jute, and if the price of the article is artificially raised, the industry is sure to be in great danger. There is one feature with regard to jute which introduces a special difficulty into the question. Jute is grown only in one province of India. The other provinces are not concerned in the production, but they are all interested in the revenue which is derived from this source.

The temptation is thus strong to raise a large income by taxing this article. But unless the temptation is resisted, they may, though unwittingly, kill the goose that lays golden eggs.

The question of an export duty on food-stuffs is beset with difficulties. It is open to doubt whether there is, in a normal year, any exportable surplus of food-grains in the country. Some persons, whose opinions are entitled to weight, hold that the total production of food in India is not sufficient for her own consumption, and if everybody were to be adequately fed, she would be a food importing, not exporting, country. The matter demands a full investigation. As the question stands at present there is something to be said on either side of it. The export of food grains causes a rise in their prices. Now, every person in the country is a consumer of food. The rise in the prices thus affects the whole community. From one point of view, therefore, the levy of an export duty, which restricts the exportation of food, may be regarded as beneficial to the community. But, on the other hand, it is argued that agriculturists, who are mostly poor, and who constitute the bulk of the population, are benefited by the high prices of food-grains under a system of free export, and the well-to-do classes can easily afford to bear a slightly higher burden. In this connexion, it is necessary to enquire whether the increase in the prices due to foreign demand actually reaches the cultivator, or is intercepted by middlemen. If the cultivator gets the benefit, the case for free export becomes strong. But if the enhanced price goes to enrich the *mahajans* or the enterprising foreign firms, many economists would support a restriction of export by means of an export duty.

Another argument against restrictions is that a fall in value, artificially created, may lead to the substitution of non-food crops for food-stuffs. It must be admitted that there is great deal of force in this argument. But, of course, none of these arguments would apply to periods of famine or scarcity. In such circumstances, not only an export duty, but even

absolute prohibition, would be justifiable. But control of exportation would hardly be desirable even in such cases, for interference by Government officers with the course of trade has come to be associated in the public mind with dishonesty and favouritism.

Import duties in India are partly specific, and partly *ad valorem*. The chief merit of specific duties lies in the ease with which they are administered. But they are inequitable in incidence, inasmuch as they fall more heavily on cheaper varieties of goods. They are thus opposed to the doctrine of ability in taxation. On the other hand, *ad valorem* duties are difficult to administer ; but they are more equitable. For the levy of duties *ad valorem* in India, sometimes the invoice values are considered ; in other cases, conventional values are fixed for definite periods. On the other hand, in countries like the United States, the goods are taxed according to their value in the local market at the time of assessment. From the administrative stand-point, the Indian system is preferable to the American, but it is less responsive to variations in prices. As a means of affording protection to industry, the latter method is more effective. But it makes so great a demand on the efficiency and honesty of officials that it would be hardly desirable to urge its introduction into the Indian financial system at the present moment.

We come now to the question, What effect will a policy of protection have on the foreign trade of India ? This question is not so easy to answer as appears at first sight. One thing, however, is certain, namely that there will be a change in the character of the trade. India will no longer remain an exporter of raw materials and an importer of finished goods ; but these two classes of goods will figure more or less equally on the import and export sides of her transactions. Whether or not there will be a diminution in the total volume of the foreign trade is more than can be prophesied at present. But even if there be some diminution in volume,

it would not be injurious to the best interests of the country. The present trade position of India is wholly abnormal. As has been observed by a well-known writer, the annual statistics of the external commerce of India are not, as in the case of other countries, a barometer of the progress and prosperity of the nation.¹ On the other hand, her foreign trade has grown at the expense of her indigenous industries and her internal trade. The trade returns of India are thus an index of her economic weakness rather than strength. In no country are the interests of foreign trade and local production always and necessarily identical, and in India they have been, and at the present moment are, almost diametrically opposed to each other.²

The future well-being of the country will thus depend not upon the growth of its foreign trade but upon its internal development. A wise policy of protection will lead to industrial expansion, which will far outweigh any possible disadvantage arising from the contraction of its external commerce. It need not, however, be apprehended that the possible decrease in the volume of India's foreign trade will be so great as to affect in any appreciable degree her balance of trade. Moreover, such diminution is likely to be only temporary. The increasing industrialisation of the country will

¹ J. W. Root, *Trade Relations of the British Empire*, Ch. V.

² L. S. Amery says, "The volume of trade, more specially, the volume of foreign trade, bears no relation whatever to the total national production or to the national well-being dependent upon it. The national interest in foreign trade lies not in the volume of that trade, but wholly in its character as providing sustenance for industry or opportunity of employment." *Fundamental Fallacies of Free Trade*, p. 98. So also, H. Hirst writes, "If trade is to be profitable to any country in proportion to its volume, it is essential that it should buy itself only with the import of such commodities as the land is incapable of growing or producing, and with the largest export of such commodities as the land can and does produce." *Some Business Aspects of Tariff Reform*, p. 3.

This view receives support from J. Grunzel, who says: "When an amount equal to or exceeding that which is gained in foreign trade is lost through the restriction of home production, then there is no gain, but eventually a loss is suffered. Importation and exportation do not stand in relation of direct communication, but are separated from each other by production and consumption, and hence a continually favourable inner economic balance may be able to offset an unfavourable outward economic balance." *Economic Protectionism*, p. 131.

continually add to the purchasing power of the people. Besides, as industrial expansion proceeds, India will produce more and more for foreign markets, instead of remaining satisfied with the home market. And in proportion as her exports increase, she will be in a position to buy more goods from abroad.

So far we have confined our attention to large-scale industries and small organised industries. But it would not be wise to neglect cottage industries altogether. Apart from their moral value—and Economics being intimately related to Ethics, moral considerations cannot be wholly ignored,—the economic importance of cottage industries is very great. Every encouragement should therefore, be afforded to them. Very little can, however, be done in this direction by means of the tariff. But bounties or subsidies may, in carefully selected cases, be of considerable assistance. The hand industries of weaving and spinning are now in a decadent condition, but they still offer employment to large numbers of people. Their greatest usefulness is that they keep agriculturists employed during the off season, when otherwise they would have remained idle. During these months of the year, the labour of the cultivators and of the members of their families has practically no exchange-value, and the earnings derived from weaving and spinning, though small, help to supplement their income from agricultural work. Hand spinning also offers employment to widows and other persons who are incapable of doing out-door work. The finer fabrics produced by hand have a beauty and excellence which have enabled them to withstand, to some extent at least, the competition of mill made cloths. But the coarser kinds of cotton goods have always tended to disappear as soon as they have come in to rivalry with the produce of the mills.

Weaving and spinning are industries in which the interests of the producers are nearly co-extensive with the interests of the consumers, and it is extremely desirable to save them

from ruin. A great deal can be done by introducing improved appliances, securing for the hand workers better credit facilities, and teaching them better methods of marketing. But the main solution of the problem is to be found in co-operation. The $3\frac{1}{2}$ per cent. excise duty on the produce of the mills is some advantage to the hand-weavers. But this small measure of protection will be of little use to the industry unless more effective methods are adopted for its resuscitation.

The investigation of various questions, both scientific and administrative, connected with the tariff, will require the establishment of a permanent organisation. Of course, the final decision of questions of fiscal policy will rest, not with this body, but with the Indian Legislature. It may, however, contribute towards intelligent discussion by supplying the necessary information. The Tariff Board will collect all available data on the tariff laws of different countries and the economic and other conditions under which foreign industries work as compared with the industries of India. It will constantly scrutinise the returns of the internal as well as the external trade of India, and carry out large schemes of investigation from time to time. It will enquire into the operation of the customs system of the country including questions relating to railway rates and shipping freights. The Tariff Board will be in close touch with the Industrial Departments of the Government of India and the Provincial Governments, and will keep a watchful eye on the progress of the various industries specially those which are protected by the tariff. Lastly, it will be the duty of the Board to investigate the claims of particular industries for State assistance and to suggest changes in the customs laws of the country.

The functions of the Tariff Board should be of a purely advisory character, and it should not be invested with either legislative or administrative powers. No attempt should be made to take tariff questions out of the hands of the Indian Legislature.

As Professor Taussig, President of the first Tariff Commission of the United States, says, "Nobody, however expert, can settle, still less dictate, the position which the country shall take on controverted political and industrial questions."

The constitution of such a Board must be devised with great care. The President of the Board should be a judicial officer of high standing or an eminent lawyer, and he should be assisted by a whole-time expert as Secretary. There should be two other members of the Board, both of whom should be officials elected by the Legislative Assembly. The Legislatures should elect only such persons as have no private interests of their own to serve, and are able to consider questions relating to the tariff with a sole regard to the welfare of the country. Economists and public men possessing a full and detailed knowledge of the industrial conditions of the country but not connected, either directly or indirectly, with any industrial or commercial concerns, will be fit persons to serve on the Board. On particular occasions, when matters relating to particular industries are under consideration, representatives of such industries and also of the general public may be appointed as co-opted members or assessors, with power to take part in the deliberations, but not to vote. Sinister influence is the chief danger of a protective system, and must be avoided at all costs. No pains should be spared to secure and maintain the honesty, efficiency, and independence of the Tariff Board.

The conclusion arrived at as a result of a detailed discussion of the tariff question is that a protective policy, wisely applied, will be helpful to the economic reconstruction of India, and will give her a place among the advanced nations of the world. Protective duties will, very probably, add to the cost of living. But a price has to be paid for everything that is worth having. Future gain can only be secured by present sacrifice. The development of productive power is of the utmost importance to the welfare of the country and, in order to secure this object, the people will surely agree to

bear the burden of protective duties. Ultimately, the loss is likely to be more than counterbalanced by the gain. The way in which a protective tax is expected to affect the dormant economic forces of a country like India cannot be better described than in the words of Professor Marshall: "A protective tax," he says, "which helps a young industry to develop its latent strength, may be in the interest of an undeveloped country; even though the tax must inevitably do some hurt to those few industries, which are manufacturing for exportation. For the energy developed in a few high-class progressive industries may spread over a great part of the industrial system of the country; just as when an iron screen concentrates the whole draught of the chimney on a small part of a nascent fire, it may generate an intense local heat, which spreads and pioneers the way for a broad, strong fire."¹

But tariff protection alone will not solve the problem of the industrial regeneration of India. Those who expect that a tariff will work wonders are sure to be disappointed in the end. Protection will prove useful if, simultaneously with its adoption there is a growth of individual enterprise. The State also must adopt various measures to encourage industries. Pioneering and demonstration may often be found extremely useful. Subsidies and bounties may be granted in suitable cases, and dividends may sometimes be guaranteed to Indian Companies so that they may be encouraged to start new industries. At present, foreign imports receive indirect bounties in the shape of preferential rates in transportation both by sea and land. The present policy of the Railway Administrations in India is to favour foreign goods at the expense of indigenous products. The position ought to be reversed. Internal traffic should, wherever possible, be given greater facilities than traffic with the ports. Freight-rate concessions should be granted to nascent industries, particularly for the carriage of raw materials. In Germany and Belgium, the railways have

¹ *After-War Problems*, p. 333.

been used as an instrument for the development of indigenous industries with the most wonderful results.¹ An effort should be made to build an Indian mercantile marine. At present, the whole of the external trade of India is conveyed on foreign vessels, and, naturally, it is directed in the interests of foreigners. If India can develop a shipping industry of her own, it will greatly benefit the economic development of the country.² Proper banking facilities should be afforded to indigenous manufactures. A comprehensive scheme of technical instruction should also be devised. But even more important than technical education in schools and colleges is the training of apprentices in factories. It should be made obligatory on all foreign concerns in India that they should train a number of Indian apprentices,³ and the High Commissioner for India in England should make it a condition of the purchase of stores from British firms that they should admit Indians to apprenticeship.

But the most effective way in which the State will be able to assist Indian industries will be by the local purchase of stores required for the use of the various departments of the State including the railways. The Industrial Commission of 1916-18 reported that the manufacturing capacity of the country had in the past been far from sufficiently utilised by the Government, and this opinion was endorsed by the Stores Purchase Committee, who recommended "the acceptance by the Government of India, as a definite policy, of the principle that all articles required for the public service should be obtained in

¹ Vide the opinion of Mr. Lloyd George, quoted in Mr. S. C. Ghose's pamphlet, *State Management of Indian Railways*.

² Fisk says, "As a general principle of economics, if we can justify protection to manufactures and agriculture, we certainly cannot deny the right of navigation to an equal consideration." *International Commercial Policies*, p. 247.

³ On the question of the employment of Indians on the Railways of India, the Indian Railway Committee observed: "The 700 (Europeans) were like a thin film of oil on the top of a glass of water resting upon but hardly mixing with the 700,000 below. None of the highest posts are occupied by Indians, very few even of the higher. Report, p. 58. The Committee strongly urged the training of Indians in all the branches of railway activity.

India, whenever they are procurable in the local market of suitable quality and reasonable price, as well as that preference should be given in all cases to indigenous articles or to those of local manufacture, except where it is manifestly disadvantageous to do so." In the matter of industrial development, the Government of India should adopt the enlightened policy pursued by the United States, Germany and Japan.¹

Now, supposing India has a protective tariff, the question then will be, What use to make of it? It is suggested in some quarters that the Indian tariff should be used as an instrument for bargaining with other countries. It is true that most of the advanced countries adopt this method to further their industrial and commercial policies. But it is open to doubt if India would be wise in following the practice of those countries in this respect. A tariff is at best a dangerous weapon, and if clumsily handled, it is likely to do more harm to the user than to his adversary. Moreover, as has been rightly observed, tariffs are like armaments; when one country increases them, others do the same. India's fiscal policy should, therefore, be one of defence and not of offence. A tariff war is a costly business, and the prospects of success are not always certain.² Besides, regenerated India must try to live up to a higher ideal than that of national selfishness and jealousy. A tariff war should,

¹ Count Okuma gives a full account of the various measures adopted by the State to promote industrial development in Japan. *Vide Fifty Years of New Japan*, Vol. I. Mr. T. M. Ainscough says: "The foreign policy of Japan is primarily a forward and active commercial policy. This cohesion and co-operation of all interests for the general welfare is carried to a degree which is not experienced in the case of any other nation." Report 1919, p. 15.

² The Committee on Industrial and Commercial Policy after the War observe: "There is a tendency to exaggerate the utility of a tariff to any one country in obtaining a reduction of the tariffs of other countries. It is common experience that both sides to an approaching negotiation start by raising their tariff rates to levels higher than are actually held to be requisite for their respective economic interests, so as to have ample margin for negotiations, and it is rare that the discussions have ended in the reduction by either side of rates below those previously in force, unless such reduction had in fact been decided from the first." *Vide Report*, p. 49.

therefore, be the last thing to be thought of by a patriotic Indian as a policy conducive to the welfare of his country.

It remains now to consider the effect of a tariff on the income of the State. There is an intimate connection between the industry of the people and the finances of the Government. Other things being equal, when the one prospers the other prospers also. If, therefore, as is expected, a protective tariff proves a success, it will lead to an augmentation of the resources of the State. Until recently, revenue was the sole purpose for which customs duties were imposed in India. But, in future, protection, as well as revenue, will be the object of the Indian tariff. Within reasonable limits, the tariff may be able to serve both these purposes; but if pushed to either extreme, the two ends will perhaps become inconsistent with each other. A moderate tariff will thus be the best from the financial standpoint.

As a tariff implies indirect taxation, we are confronted with the question, namely, whether direct or indirect taxation is the more eligible form. A tax is unpopular all the world over; but a direct tax is more so than an indirect one. The very reason, however, which accounts for the disagreeableness of a direct tax makes it preferable. The taxpayer knows exactly how much he contributes to the revenue of the State, and he makes it his business to enquire how the amount is spent. Another great merit of a direct tax is that, if properly graduated, its burden tends to fall more heavily on those who are able to bear it with comparative ease than on the less fortunate classes of society. Again, the incidence of a direct tax is easier to determine than that of an indirect tax. On the other hand, a direct tax is somewhat inquisitorial in its nature, which an indirect tax is not. It is also an advantage on the side of an indirect tax that the payment is made in a manner and at a time likely to be convenient to the taxpayer.¹

¹ *Vide* Mill, Principles of Political Economy.

But the tendency towards regression or inverse graduation is the great defect of an indirect tax.¹ In comparatively backward countries, and specially in countries governed autocratically, indirect taxation is always preferred to direct taxation. But as a community progresses, it tends more and more to rely upon direct taxes as the chief source of revenue for the State.

In India, the Government, until comparatively recent times, shrank from any recourse to direct taxation, lest it might give rise to discontent. Non-official opinion, particularly among the richer classes, both European and Indian, has also been in favour of avoiding direct taxation as much as possible.² But now that some form of popular government is about to be established in the country, it will be desirable to combine direct and indirect taxes in such a way that the burden of taxation may be distributed equitably over the whole surface of society. In such a scheme of judicious combination, no section of the community will be overtaxed, and it will be possible to properly safeguard the interests of the poorer sections of the community.

There is, however, one difficulty which suggests itself in this connexion. The resources of the Government of India have now been separated from those of the Provincial Governments. The latter are in charge of departments of administrative activity which are intimately connected with national welfare. But their sources of income are very few, and even these are inelastic. On the other hand, indirect taxation is completely in the hands of the Government of India, and so

¹ Prof. Marshall says:—“Many such (indirect) taxes press with heaviest weight on the poorest classes, and with no appreciable weight on the rich; while those which fall chiefly on the consumption of the rich, have never been made to yield a large revenue.” *After-war Problems*, p. 319. But J. A. Hobson seems to go too far when he says:—“(Of all the forms of taxation, tariff duties are the most injurious in their numerous, widespread and incalculable shiftings, in their delays and incidental injustice of their incidence, in the uncertainty of their yield, the contumaciousness of their collection, and the business and political corruption which they breed.” *Taxation in the New State*, p. 136.

² Even Mr. Gokhale who looked to the interests of the poor more than any other Indian statesman, said on one occasion: “We can raise much larger revenue than we do at present from customs without its proving burdensome to any section of the community.”

also are two of the most important direct taxes, namely income-tax and super-tax. The Provincial Governments must have more resources at their disposal if they are to properly discharge the duties that have been assigned to them. And if they find it necessary to resort to fresh taxation, such taxation will necessarily be direct. Under such circumstances, it would be desirable for the Central Government not to encroach further upon the field of direct taxation which should be left as far as possible in the hands of the Provincial Governments.

A word may be said here about the effect of the tariff policy of India on her international relations. It is sometimes said that free trade is the better policy from the international stand-point, for it produces international amity and concord. But this is an erroneous view. As a matter of fact, it can produce as much bitterness, suffering and hostility as protection. If we appeal to experience, we find that the application of the principles of free trade has resulted in the economic degradation and political subjugation of weak nations. On the other hand, protection may enable the weaker communities to defend themselves against the stronger nations both economically and politically. Solidarity among the peoples of the world is certainly a most desirable object, but it can be attained only by the adoption of the principle of non-interference and the recognition of the right of each people to its maximum economic development. Of course, this is possible under both systems, protection and free-trade. But so long as national frailties remain what they are, protection seems to be the easier method of achieving the object than freetrade.¹

¹ L. J. Hecht expresses a similar opinion in his *Real Wealth of Nations*. Grunzel describes the effect of protection on international relations thus: "In the place of the international division of labour between agriculture and manufactures, assumed by classical economics, a division of labour within the sphere of manufacturing appears. If now the development of the productive capacity of a country leads to industrialization, and if industrialization increase the participation of the country in world-economic dealings, it follows that the protective policy, as an important aid to industrialization, must under proper manipulation lead to an extension of world-economic relations." *Economic Protectionism*, p. 342.

Englishmen often express surprise at the fact that the watchword among Indian politicians, industrialists and business men to-day is protection. This is true, but the reason is not far to seek. If Indians are protectionists almost to a man, thanks are due to the policy which has been so far pursued by the Indian Government in regard to the industries of the country. Indians object not to the principles of free-trade but to the way in which these principles are sought to be applied in India. The people of the country are not so thick-headed as to be unable to appreciate the benefits of real free-trade, but they may be pardoned if they take the professions of interested supporters of the doctrine with the proverbial grain of salt. Sincere advocates of free-trade, however, need not despair. As soon as the country becomes once more self-governed, and she regains her normal economic position, many a free-trader will be found in the ranks of her economists and statesmen. Meanwhile, India must be left free to settle her fiscal policy in the way she finds it best suited to her own needs and conditions.

PRAMATHANATH BANERJEA

THE ROSE OF INDIA

(ACT III, SCENE IV)

[*Scene.* The tent of St. Thomas. St. Thomas discovered with Tulsi the mute].

St. Thomas—

Dost thou believe in Christ and in His power
To cast the spirit of dumbness out of thee,
As He did whilom in Decapolis?
(*Tulsi makes sign of assent.*)
Then be thy lips unsealed in His name.
O Christ, touch Thou Thy servant through my touch,
And through my voice pronounce thine "Epphatha,"
New lips unclosing to confess Thy name.
Now, little brother, with thy earliest speech
Canst thou inform me unto whom is due
All glory for the unclosing of thy lips?

Tulsi—

Jesu Masih. Jesu Masih. Jesu Masih!

St. Thomas—

My humble praises likewise, Lord, vouchsafe
With this Thy child's first utterance to receive
Who in the mouth of babes hast perfect praise
(*A cough heard in the doorway.*)

Go, Tulsi, and enquire who stands without.

(*Tulsi goes and returns, followed by three servants who,*

bowing low, present offerings.)

St. Thomas—

At whose command bring ye these offerings?

Servant—

Our master, presence, is the aged *Sheikh*
Of Jaffna, who waits barefoot at thy door.

St. Thomas (going to tent door)—

Hail, holy *Sheikh* ! as if my humble tent
Be not too lowly for thy dignity !
(*Enter Gaspard and saluams profoundly*)

Gaspard—

Noble Apostle, in yet lowlier lodgement
Once I beheld the Majesty Supreme—
A little child—ah ! I can see Him now,
As His sweet Mother throned Him on her knee
And we our homage paid Him, laying there
Our gifts before Him, gold, frankincense, myrrh.
’Tis years ago—howe’er should I forget ?
But, since the tidings of thy coming here,
New longing hath awakened in my soul
That I, in heart His servant, might become
By sacrament His member, till to-day
God’s guidance, like a star upon the road,
Hath brought me hither, where my heart’s desire
From thee may find fulfilment ere I die.

St. Thomas—

Can it be true, then, thou art one of those
Told of in Matthew’s gospel, who were led
To Bethlehem from the Eastern lands afar,
To worship Him who lights the Gentile world ?
’Tis many years ago !

Gaspard—

My hairs are white.
Alone of those who pilgrim’d I am left.

St. Thomas—

Pardon, *Maharaj*, if I seem but slow
To conquer mine amazement; I was e'er
Hard of convincing. Take it not amiss
I dare to ask of thee some proof of this.

Gaspard—

If me thou doubtest, *Sacani*, then demand
More carefully concerning what I tell.
Question me of that journey and its goal.
With Herod's diligence enquire of me
What time the star appeared. I mind it well.

St. Thomas—

Hast thou no sign beyond mere words to give ?

Gaspard—

Yea, *Sacani*, I can give thee what I gave
Unto thy Lord in Bethlehem long ago.
For I it was who offered Him the myrrh,
The bitterness for shadowing of that cup
He drained for sinners' sake on Calvary.
(Ay, tidings of it reached us o'er the seas).
Now the same gift I render under unto thee,
As with an inward vision I discern
Shade of a doom impending o'er thy head,
Encircled with the crown of martyrdom.

St. Thomas—

When 'tis His will, I will it. Welcome, Myrrh
That promisest to all unworthy me
So sweet a share in Christ His sufferings.
Rajah, no more I doubt thee, but anon
Will pour baptismal waters on thy head.

When the King Gondophares and his brother
 By Spirit and water shall be born again,
 Then thou, the third, shalt fall and worship Christ,
 As on a time thou didst in Bethlehem.

Tulsi—

Master, two more wait on thee with *salaams*.

St. Thomas—

Give mine to them in answer, Bid them enter.

(*Enter Gad and Sitaraman*)

Gad—

Peace to thee, *Sicami* ! Let me here present
 Brave Sitaraman, captain of the host
 Under Mahadevan of Mailepur.

St. Thomas—

Salaam, Bahadur ! Peace be unto thee !

Sitaraman—

O Great Muthappen¹ ! unto me and mine
 What peace can be, unless thou bringest it ?
 My wife and little daughter lie possess
 By some foul spirit, tormented grievously,
 Take pity upon my sorrow, thou in whom
 Resides the power of healing. Mailepur
 Hath many in soul and body sick to death ;
 Come thou and heal our wounds, and set us free.

St. Thomas—

If thou believest on the Name of Christ
 This that thou askest shall be done to thee.

Sitaraman—

O great Apostle, did I not believe,
 Should I so far have journeyed to thy feet ?

¹ *Muthappen*—grandfather, a term of affection frequently used in the Legend.

Gad—

And I with his my supplications join ;
 Beloved Apostle, unto Mailepur
 My road likewise with Sitaraman lies,
 There of Mahadevan his Majesty
 To make entreaty for his daughter's hand,
 For Magudani, Rose of India,
 Whose sweetness overpowers the heart of man.
 Wherefore upon our marriage to bestow
 Thy benediction, come to Mailepur,
 And rise the banner of the Cross anew.

St. Thomas—

Here I have raised it, and a Voice within
 Hath told me that my labour here is done.
 The vine is planted. God will make it grow,
 And give the increase. Unto one there falls
 The task of planting, while the watering
 Falls to another, and God uses both.
 Nor when he calls His labourer from his task
 Shall His vine perish ; for 'tis His, not mine.

Sitaraman—

Thou comest with us, then Apostle blest ?

St. Thomas—

My son, I come—since in thy need I hear
 A Voice august that calls me : nor this time
 Will I delay my answer.

Sitaraman—

God be praised !

Tulsi—

Thou goest, Master ? Then I follow thee.

St. Thomas—

Come, little brother ; when we follow Him,
 We come to where we meet Him face to face.

Gaspard—

Look, comrades, look ! There—in the vaulted sky !
Can we not see it ? Ah, how bright it shines !

St. Thomas—

What seest thou, O far-journeyed and revered.
That we perceive not ?

Gaspard—

'Tis the star, the star !
Up comrades, mount ! and on to Bethlehem !

(Stagger and falls. St. Thomas catches him.)

St Thomas—

Bring water, ere too late ! He nighs apace
His journey's ending, where the young child is !

CURTAIN.

(To be continued)

FRANCIS A. JUDG

THE MOUSE-TRAP¹

Of twisted wire I made a little house
At dusk, and set it in my haunted room.
Hoping to trap a little lonely mouse
That nibbled at the grain-heap in my house
Far-hidden somewhere in the greyer gloom.

When a thin line of light was in the sky,
I rose, and heard within my little house
Of crooked wants, a sharp and desolate cry :
Ah me ! it was the pleading plaintive cry
Of my grey soul that trembled like a mouse.

H. CHATTOPADHYAYA

¹ Reproduced from *Sham-e'-a* (April and July).

From Far and Near

The Centenary of Shelley.

Last year saw the centenary celebrations of John Keats, Dante and Molière. On July 8th it will be a hundred years since Shelley was drowned off the Italian coast during a storm. The centenary of Keats was commemorated last year by a memorial volume to which admirers of Keats from all parts of Europe and America, and even from the Far East, sent contributions. We are not sure whether a Shelley Memorial Volume is in contemplation; we only hope that the occasion of the centenary of one of the world's greatest poets will not pass without due and comparable recognition.—*Shama'a.*

Future of Civilisation.

It is no exaggeration to say that the key to the future of civilisation will be found in India. Once win India for Western ideas and institutions, and the perils of the Middle and Far East will melt into thin air. But if the united India of the future be detached from the Occidental League of Nations, the way has been prepared for a fatal conflict between East and West which might well be the death-struggle of civilised society. Fortunately, the portents are almost all favourable to the former contingency. In the first place, it is a common mistake to regard the people of India as racially an Oriental stock. The fundamental fact that the Indians are of Aryan blood, like ourselves, must never be forgotten. In ancestry and traditional inheritance they are as far removed from the Mongolian races as we are. "Between India on the one hand and China or Japan on the other", says an acknowledged authority, "there is as great a difference as between India and any Western country". Further, the *Vedas*, or sacred books of the Hindus, reflect an attitude towards life similar to that of the Western Aryans. The great linguist, Max Müller, wrote that "even the blackest Hindu represents an earlier stage of Aryan speech than the fairest Scandinavian". The shape of the head and the facial features further support the statement that the Indians issued from the great fountain-head of Aryan races, the country between the Caspian Sea and the Himalayas.—*The Herald (Australia).*

Revival of Soviet Russia.

The London "Outlook" publishes some astonishing information about Soviet Russia, supplied by Mr. Walter Duranty, formerly Paris correspondent of that journal. Mr. Duranty writes from Moscow on August 1st:—

"Unless I am wholly wrong, the great Nijni Novgorod Fair, which opens to-day and which I am just off to visit, will be a landmark in Russian history. Russia is emerging from night into day. The harvest, taken all in all, is only about 30 per cent. below pre-war average. This means that Russia has come back, and that within three months the peasants will have upwards of fifty million pounds (in real purchasing value) to spend. They need everything, and an industrial revival is certain to follow. Do you realise that these people have stabilised the rouble? Don't make the common error of laughing at the Bol-shevists and their finance. It isn't orthodox, but, in a self-contained country, it

works. The Russian rouble is now worth more than the German mark. In March the dollar had touched $4\frac{1}{2}$ million paper roubles. Since then it has varied between four and five, and it is now about four. That is relative stabilisation. In the meantime, Moscow has done what so many other States will have to do, accomplished demonetisation. New notes have now been issued worth 10,000 times more than the face value of the old notes. Thus a 100-rouble note is worth a million of the old paper. At the end of this year all the old paper money will be valueless, and people are already beginning to talk in terms of the new currency. So to-day the new Soviet money is worth about 1,500 to the pound, or approximately twice the value of the mark, a result which has been accomplished by stopping the printing-press and by the so-called 'bread-loan.' Here is a fact which you will think an astonishing paradox, but it is true; the State Bank has more gold roubles than it knows what to do with, and there is a marked scarcity of paper. If the Bank threw its gold roubles on the market it could still further improve the new rouble and probably put the pound down to one thousand. But this will not be done, as the Bolsheviks, following the maxims of Keynes, want stabilisation of exchange more than improvement, and are satisfied to leave things where they are.

"The Japanese have just asked the Bolsheviks to a conference, the real purpose of which, I understand, is a commercial agreement, probably on much better terms for Japan than any other nations except Persia, and Afghanistan have yet obtained. I understand England has a finger in that pie. What absurd rumours I read in the English papers, which now get through to Moscow in a week, about the impending flight of Trotsky, the fatal illness of Lenin, and the approaching internecine struggle and fall of the Government! No Government in Europe is more stable. Lenin is much better, is already seeing important people for an hour or two every day, and they expect that by the end of August he will be able to go to Moscow and work one or two days each week."—*The Bournemouth Chronicle*.

Professor Saintsbury.

It is proposed to commemorate Professor George Saintsbury's seventy-seventh birthday, which falls on October 23 of the present year, by presenting him with an address of congratulation and good wishes, together with some more substantial token of the regard in which he is held by his old students and by the world of letters, writes the "Times". The movement has taken its rise, in the first instance, among those who have been students of the Professor in the English classes at Edinburgh University; but it was felt that some of the younger men of letters might care to join in the tribute; and so cordial has been their response that it has been decided to address the appeal to all who feel sympathy with his personality and scholarship, or who recognize the immense debt which students of literature throughout the British Empire and the whole English-speaking world have owed to him for upwards of two generations. It is intended that the complimentary address should be signed by all subscribers to the Testimonial Fund. Subscriptions, which may be of any amount, without limit in either direction, should be sent at the earliest possible moment to the Honorary Treasurer, William Wilson, Esq., Secretary to the University, The Old College, Edinburgh, by whom they will be duly acknowledged. The amounts of the individual donations will not be made public, but a balanced audit sheet will be furnished to all subscribers.

" ASHES "

Where are our youthful dreams,
O, where are they ?
Vanished like sunset gleams
At the close of day.

Where are our ideals,
Lift us they higher ?
Alas, unheeded sparkles,—
Stars in the mire.

Where are our cherished hopes ?
Immured they lie
Where no fulfilment opes,
And so they die.

Life, thou art a mere waste
That ashes retrieve ;
Ah, bitter is the taste
The ashes leave !

V. B.

Reviews

Bureau of Education, India, Indian Education 1919-20.—This reviews the growth of education or rather the activities in education within cognisance of the Government of India. Of course there is much systematic progress as is patent from expenditure on education and the total number of pupils under instruction in India from 1858 and 1867 to this day. But the statistics are very much misleading as the total area under review and total revenue of the government are not taken into consideration progressively from year to year. And it is conveniently forgotten that in the days of the beginning of English education there were indigenous institutions, *maktabs* and *pāthshālās* for primary education as well as *talas* etc., for higher education and India was not exactly full of illiterate 'Red Indians' when the benign government took upon itself the task of educating the country, as would be the impression from the graphic chart.

ESKARE

A Mid Victorian Hindu; by Sukumar Haldar, B.A.—A sketch of the life and times of Rakhaldas Haldar, with a foreword by Pranatha Nath Bose, B.Sc., (London) Pp. 303. Price Rs. 2-8. 1920.

These books are extremely interesting for the light they throw on the period now known as Anglo-Bengal-e Renaissance. While none of these reached the eminence of Bankim, or Debendranath Tagore, or Keshabchandra, or Vivekananda, we feel we are in presence of true men characterised by a truth and earnestness and desire to serve so common to the cultured middle-class of the day. Such a typical successful 'Mid-Victorian' Hindu is Rakhaldas Haldar.

P. M.

Memoirs of Kali Prosunna Singh; by Manmatha Nath Ghosh, M.A., F.S.S., F.R.E.S. Pp. 150. Price Rs. 1-8. 1921.

Kaliprosunna Sing, a cultured aristocrat and the celebrated author of the Bengali version of the *Mahabharata* died young, but lived long enough to take part in what may be termed 'a classical revival' of Sanskrit dramatic representation and holding fast to the national costumes. It may be hoped that this biography would stimulate the ambitious landlords of the present day and imbue them with the right spirit.

p. M.

A Modern Saint of India.—A sketch of the religious life of Sevabrata Brahmarshi Sasipada Banerji by Satindranath Raychaudhury, M.A., B.L. 1920. Pp. 102. Price annas eight only; **The Romance of a Great Indian Social Servant** (or the life and career of Mr. Sasipada Banerjen); by B. N. Motiwala, B.A., L.L.B., Ph.D. Pp. 49. Price annas two only.

The subject of these two memoirs has been held in very high esteem by some and is remarkable as the founder of a theistic society, the *Devulagu*. He led a spotless life dedicated to social service and boldly stood against the conventions and pettinesses of the day. His worthy son is the present *Dewan* of Mysore.

P. M.

Bureau of Education, India, (Pamphlet No. 11).—Education at Jamsheldpur, by C. E. Fawcett, M.A., I.E.S. and M. D. Madan, M.L.C.: Price One Anna.

This extremely useful and cheap publication shows what could be and should be done by capitalist millionaires. It should be a lesson for all our capitalists and popular ministers as to where to put the pressure.

P. M.

History of British India under the Company and the Crown: by P. E. Roberts (Oxford at the Clarendon Press, 1921).

The Government of India—a brief historical survey of Parliamentary Legislation relating to India; by Sir Courtenay Ilbert, G. O. B., K.C.S.I. (Oxford at the Clarendon Press, 1922).

Looking at the matter from the historical point of view the growth of British power in India is a fascinating subject. A group of 217 London adventurers was incorporated into the East India Company on the last day of 1600 to trade with the East Indies. In two centuries and a half the Company bequeathed to the Crown the political control of the whole of India. Mr. Roberts needs no introduction to the students of British Indian history. A novel feature of this book is that fully one-third of it is devoted to the post-Mutiny period. Necessarily the latter period is not as yet capable of real historical treatment. The archives of the India Office, Delhi and Calcutta have yet to yield their secrets. The author satisfies himself by passing "non-committal verdicts" using skilfully the elaborate minutes and state papers, the composition of which is 'an engrossing occupation of Indian rulers.'

What strikes us most in reading this book is the conscientious attempt made by the author to be impartial. His admiration for the greatness of Clive's achievements does not blind him to his hero's 'certain moral

limitations.' Clive's overfondness for money crippled the Company's administration and so he must bear the blame for the notorious misgovernment of Bengal that followed. Mr. Roberts does not always shower paeans of praise on the conquests of the English. Speaking about the final conquest of Burma, under Dufferin, he says that it 'involves a difficult problem of political casuistry.' He admits that 'the abstract rights of semi-civilised countries receive scant recognition when great colonizing powers converge upon them.' His sense of fairness leads him to defend the Russian advance southwards towards Afghanistan as being as inevitable and as little deliberate as the English advance northwards to the Himalayas.

All the varied aspects of the rise of the English have been well treated. In the early part of his book, Mr. Roberts makes a skilful use of the India Office records and Mr. Foster's *English Factories in India*. He does not treat with minute detail the unending series of wars which form a large part of the British Indian period between 1770 to 1820. He passes over too hurriedly the Anglo-French duel for supremacy in India. The best portions of the book are those dealing with the relations of the English with Afghanistan. Just now when the whole of the Frontier Policy is so keenly discussed, it is very interesting to read of the origins of this perennial problem facing the Indian rulers. Referring to the introduction of the English language and Western science under Bentinck, Mr. Roberts thinks it was unfortunate that at that time philosophical radicalism with its shibboleths of individualism and freedom from all restrictive bonds was the fashion in England. He remarks rather acutely, 'we attempted to raise a race of administrators on the literature of Revolt.' With the latter-day developments of the British policy the author is hardly sympathetic. He condemns the transfer of capital and particularly the way in which this change was brought about. It was the announcement of the King-Emperor speaking *res-cathedra* from his Indian throne and the Parliament was not at all consulted. 'If such momentous reforms could be carried by the executive on its own authority, it would be difficult to imagine any circumstance' in which the legislature would have to be consulted: It was the work of Liberals who are supposed to be jealous of any encroachment on Parliamentary privilege. From the constitutional standpoint Mr. Roberts is undoubtedly right.

We can very cordially recommend this book to the advanced students of the British period as well as to public men who will find it difficult to obtain a better account, in a short compass, of the historical origins of most of the present-day topics. We may, however, point out one or two mistakes which we trust will be corrected in later editions. Lord Sinha of Calcutta (p. 550) should, of course, be Lord Sinha of Raipur. Some of the names in the map of Afghanistan on page 430 are wrongly printed—Gilgir for Gilgit, Mashij for Mastuj, Nunja for Hunja. Another serious defect is the absence of an exhaustive and critical bibliography for which we shall have to wait till the fifth and sixth volumes of the Cambridge History of India appear.

British authority in India is derived from a twofold source—the Crown and Parliament in England and the rulers in this country. Sir Courtenay deals only with the various charters granted by the Crown

and the successive Acts of Parliament dealing with Indian affairs. In ordinary histories of British India these Charters and Acts are so scattered about, that it is impossible to obtain a good idea regarding the evolution of the present Government of India. The change from a mere Company which was granted by Elizabeth the exclusive right of trading 'beyond the Cape of Bona Esperanza to the Straights of Magellan' and making 'reasonable laws' to the present complex system of government with its elaborate codes is vast and profound. Sir Courtenay divides his subject into three periods—the trading period, the period of charters, which ends with the *derwani* grant; the period of double Government, characterised by the increasing control of the Company by Parliament which ended in 1857; and the present period of constitutional experiments. But the author recognizes that 'a thread of continuity connects the successive stages of legislation in India and any division...is subject to the charge of being English arbitrary.'

In this book we find that the East India Company was the outgrowth of the Levant Company which had been chartered in 1581. The latter Company sent merchants to the Persian Gulf who obtained articles at Lahore and Agra and brought information of the profits to be acquired by a trade to India; while the East India Company grew and developed, the other Company dwindled and disappeared in 1825. There are very few striking changes in the first 150 years of the Company's existence. The first really important Act dealing with India was the Regulating Act of 1773. Sir Courtenay deals learnedly with the conflicts which it gave rise to in the Governor-General's Council, the struggle between the Council and the Supreme Court. The increasing interference of the Parliament in the Company's affairs made the assumption of the government of India by the Crown in 1858 a formal rather than a substantive change.

Just before the Company expired by the Charter Act of 1853, the Executive Council of the Governor-General was enlarged by the addition of six members from various parts of India to form a Legislative Council. It was round the nucleus of the Executive Council that the Legislative Council developed. Although composed of officials in Company's service, the council displayed an inconvenient degree of independence and its powers were clipped by the Indian Councils Act of 1861. The main interest of the post-Mutiny period is the development of the legislature—a subject as yet not thoroughly investigated. Sir Courtenay gives us all the important changes made by the Parliament after 1857. With the practised hand of a legal historian he takes us through all the changes made in the Government of India. The value of the book would have been much enhanced if it had contained an index, although excellent sub-headings to some extent supply this want.

Y. J. T.

The Sorrows of Louis XV, infant King of France; by H. W. B. Moreno; (Calcutta, the Central Press).

This is a charming little story meant for the young and uninitiated showing how uneasy lies the head that wears a crown. Although it is a

translation from French, we hardly notice it while reading the pamphlet. The date of the story should be not 1745, but 1715 as Louis XV was born in 1710 and Orleans was proclaimed regent in 1715.

Y. J. T.

India's Mission to the World; by Annada Prasad Bhattacharyya, M.A.; Price annas four a copy; to be had of the Book Company Ltd., College Square, Calcutta, pp. 15 only.

The writer of the pamphlet exhorts every one to lead a godly life as therein lies salvation. He says that 'if Europe is regenerated the whole world will be regenerated through her and by her example. Let the reign of peace and contentment, happiness and godliness be established in Europe, and through Europe, in the whole world. Let India accomplish the task that lies before her, win immortal glory, and fulfil God's will.' We say, Amen!

ESKARE

Sir Gooroodas Banerjee; by Rai Bahadur Chunilal Bose, I.S.O., M.B., C.I.E. etc.; published by Messrs. S. K. Lahiri & Co., 56, College Street, Calcutta; price Rs. 2 per copy.

Sir Gooroodas was one of those few men in whom western learning and eastern simplicity was happily combined. The first Indian Vice-Chancellor of the Calcutta University, the biography of Sir Gooroodas covers an important chapter in the History of Education in Bengal. He was for about forty years connected with the University. A brilliant student, an eminent lawyer, an exceptionally successful teacher, one of the most renowned judges of the High Court, Sir Gooroodas was a man universally respected and an educationist who had his eyes always fixed on the past. The biographer Rai Bahadur Dr. Bose was a personal friend of Sir Gooroodas and his informations had been at different times been gathered from the subject of the biography him-self. And the anecdotes he gives in this book are extremely interesting and give a very pleasing picture of Sir Gooroodas, his relatives and friends. But we do not find in this biography a graphic History of Western Education in India, the growth and development of Indian Universities without which an accurate estimate Sir Gooroodas's services to his country and *alma mater* is impossible. Such a biography is a real need but cannot be compiled in a few months. In the meantime Rai Bahadur Bose's book will be useful for those who want a short biography of the departed great man. The book is nicely printed and well-illustrated.

S. N. S.

An Introduction to Co-operation in India ;—By C. F. Strickland, I.C.S., Oxford University Press, pp. 75. Price Rs. 2.

This is the first of a new series of publications—"India of To-day" series—published by the Oxford University Press under the general editorship of the Central Bureau of Information, Government of India. Mr. Strickland first of all examines the evils which co-operation seeks to remedy, and, in doing so, he discusses the economic conditions of the world as now governed by capitalism, and the proposals made by Socialists and others for their improvement. He then defines the meaning of "co-operation" and gives a brief first-hand account of what has been accomplished by co-operators in England and Italy: in his book—'Studies in European Co-operation'—he has dealt more elaborately with the co-operative achievements of Italy and other European countries. He then describes the different types of consumers' and producers' co-operation and finally reviews the origin of the movement in India, the progress made up to date and the principal forms of society which have been developed in India. It is really marvellous that he has done all this within the brief compass of seventy-five pages: as a reliable and authoritative introduction to the study of co-operation in India it can hardly be surpassed. We only wish that the price was a little cheaper.

P. D. M.

The Feeding of Dairy Cattle: by Andrew C. McCandlish, Professor of Dairy Husbandry, Iowa State College of Agriculture; John Wiley & Sons, New York. P. 281. Price 12-6 net.

During the last two decades, remarkable improvements have been brought about, through untiring energy of practical feeders and investigators, in the field of animal nutrition, particularly of Dairy Cattle. The author gives a brief résumé of the work hitherto done and reviews in a non-technical manner the fundamental principles on which the solution of the question rests. Much of the information refers to the United States of America and the treatment of the subject naturally has a reference to the American conditions. Yet, the book may be very useful to those who are anxious to obtain some idea of scientific feeding of dairy cattle. We have not yet awakened to the gravity of the situation caused by rapid deterioration of milch cattle in India. The solution depends not on conferences, meetings and pious resolutions, but on patient investigations into the problems of "feeds and feeding" by men of science. All-India Cow Conference would do well in recognising *Science* as an ally to achieve the object the Conference seeks. The University of Calcutta has now recognised Agriculture as a subject of post-graduate study; and with the public support the University may undertake dairy investigations and other problems related to cattle improvement.

NAGENDRANATH GANGULEE.

A Correction for our last issue, (Vol. IV, Number 3, September, 1922), page 548, line 17, read *Dūtaka*, instead of *Dutaka*, and page 549, line 11, read 'term' for 'literature'.

KRISTO DAS PAL¹

When I was asked to speak on this anniversary of Kristo Das Pal's death, my first thought was that I was a most unsuitable person. I have never spoken before; I have very little belief in the value of speaking, especially public speaking, and think there is far too much of it. I imagined I must have heard of Kristo Das Pal, but whatever it was that I had been told had made no impression. Still, the invitation to speak, if I did not immediately decline it, would be an incentive to me to break ground in a new course of reading. I should be led to read the life, or lives, of Kristo Das Pal. That would not take long. If, when I had read them, I felt I had nothing whatever to say, then I could decline the invitation. There would be plenty of time for another speaker to be selected.

The subject soon promised to be of unusual interest, and the more so to me because of a coincidence. It was that Kristo Das and my father died about the same time, and at about the same age (Kristo Das was a year older than my father), and death in each case was due to over-work. They were more capable than their fellows to about the same degree: there had been a close similarity in their work, both having been Secretaries to public bodies, over which they exercised enormous influence: and each had neglected his private fortune in the public interest. A public subscription was raised after the death of each, and I imagine that the number of subscribers and the amounts subscribed were not very dissimilar.

Another fact of interest that emerged was that Kristo Das, a young man educating himself, had spent all day for four or five years among the books of the Calcutta Public Library at Metcalfe Hall. As some of you know, Metcalfe Hall is

¹ Lecture delivered at the University Institute on July 24, 1922.

where my own work takes me to daily. Had my time happened to be Kristo Das's time, we should have met daily, our faces would have been familiar to each other. As it is, I have the pleasure of thinking that our feet have stood on the same spots, our hands holding the same books. I shall never again be able to look at the familiar stamp of the Calcutta Public Library on a book without thinking of Kristo Das Pal.

I spoke of him a moment ago as a young man educating himself. But he had had a teacher—Captain D. L. Richardson—and had been fortunate in that teacher. That is another matter that makes the subject one specially interesting to me. But before I say what I wish to say about that, there is something to say first.

You are met here to do honour to Kristo Das Pal. It is not that you think it will do him good: it is for some good that you hope it will do yourselves. Well, if it is to do you good, and if any part of that good is to derive from my speaking to you, I must point the moral of things. I should like to point the moral of Kristo Das's having had Captain Richardson to be his teacher.

It becomes very evident, as one reads Kristo Das's writings in the "Hindu Patriot," and not only from their language and style, but also from their moderation, weight and force, that he had been very well taught, which makes one interested to know who taught him. It was Richardson. He joined the Bengal army when eighteen years of age. He cannot have received much education. He began almost at once to contribute poetry to the Calcutta Journal. While he was writing it, he was not training his mind in exact scholarship. I have written poetry myself, and so I know that. He left the army and became a journalist. He rejoined the army, but left it again, and again became a journalist. In those later years he can as little have trod the paths that lead to exact scholarship as in the earlier. If his day had been this day, and if he had applied for a teachership, he would have been turned away,

a little scornfully too, as utterly unqualified. Well, things were different in those days, and he became a teacher, all without a University degree, with only such knowledge as he had picked up in the street. Yet all the enquiries that one makes go to show this—that he was far and away the most successful of the Englishmen who then taught in Bengal.

He taught English literature. He cannot have known a vast deal about it, but he had a great love of it. But what made him so good a teacher of Kristo Das and the others was less his love of literature than his love of the youngmen themselves. He had that trait of character without which no man can succeed as a teacher—yet ninety-nine teachers out of a hundred are appointed without enquiry whether they possess it. The trait of character was this—that he was happier in the company of the young than in any other. He filled his house with them. He had little or no sense, that they were not his countrymen. He was without race prejudice.

I must not labour the point any more. What difference would it make if I did? You will go on looking only to the academical qualifications of the men you appoint to teach your children, and most of them will make very poor teachers.

I would next point a much more important moral. It will be difficult to put it clearly. I will do my best, and you must follow attentively. We have very poor minds, we ordinary mortals. They are very feeble instruments for thinking things out. Yet there are many things, very difficult things, that we must think out, for we have to act. We do our best, but our best is a very feeble thing, and we make appalling mistakes. There is a remedy. It is to steep our minds in the writings of some man of large, fertile and far-seeing mind, until we become so saturated with knowledge of the ways and working of that mind, as to be able to apply it, as a second mind of our own, to our own circumstances. It can be done.

You may so saturate your mind with Carlyle's teaching, and become so familiar with the trend of his thought, as ever afterwards to know, not with absolute certainty, but with sufficient certainty, what he would have thought of such or such circumstances, and how he would have decided to act.

After all, what is at the bottom of all reverence and remembering of the great men of the past but the instinct that we have need of the guidance of their example, and what would justify that instinct, if their example was too uncertain a thing to ascertain? We are agreed that it is not too uncertain. What, however, is clearly involved is a deep study of those great men.

I must take your word for it that Kristo Das Pal is the man rightly chosen to be your example; for I do not know your national heroes well enough to say whom else you might choose. Very well, then: you follow his example: when you are confronted with a difficult, perplexing situation, and know not how to act, you ask yourselves: "How would Kristo Das Pal have acted in these circumstances?" and according to the answer, so you act. That, at least, is the theory. How far you carry it out in practice I do not know. Few echoes from the outside world penetrate the book-lined corridors of Metcalfe Hall.

That, as I say, is the theory. When you have to make up your minds about something difficult, as whether you should join a non-co-operative movement, you ask yourselves: "Would Kristo Das Pal have joined it?" and if the answer is "Yes," then you do join it; if it is "No," then you do not. And you need not follow his example only in such high and mighty matters, making use of his mind, as a second mind improving on your own, only in political questions. If you will allow me, I will quote the following. It is from one of the Lives of Kristo Das. "The worker in India...has to fight the powers of nature. The Bengali in particular finds the physical conditions of life altogether inimical. A more

enervating and disagreeable climate than that of the plains of Bengal there has probably never been.....there is no controlling natural agencies like the sun, rain and wind. Existence has to be undergone in the midst of an atmosphere which is steam. One blessed with a large measure of native energy may live, but the conditions of life make mental work unusually exhausting, physical exercise disagreeable, sound and refreshing sleep impossible, and languor chronic. By careful habits men may live to a good old age : but the most important conditions of a long life seem to be the absence of sustained intellectual work, and frequent retirement to salubrious climates."

I can imagine not a few of you reading that and saying that it is quite true : and if you were really to abandon yourselves to such pessimism, and I have known some do so, how could it not greatly curtail your activities? But ask yourselves what Kristo Das Pal would have said to it : you know at once ; he would have said : " Come, now ; that is nonsense." And indeed it is : and be it said, before we pass on, that nothing ever did less harm to the body, nor less threatened life, than sustained intellectual work. It is almost as good a medicine as fasting.

If we are to use another man's mind as a second mind of our own, there must be, as has been said, a deep knowledge of that mind. Some of you, or at least some persons still alive, were born sufficiently long ago to have derived that degree of knowledge of the mind of Kristo Das Pal from actual contact with the man, or from intercourse with men who had such contact. For others, for the younger, it is necessary that there should be a good Life of Kristo Das, one comparable with Froude's "Life of Carlyle" or Trevelyan's "Life of Macaulay," and all the more so because Kristo Das's writings, such being his circumstances, were not written as much for posterity as for contemporaries, as Carlyle's and Macaulay's were, but wholly for contemporaries. You must forgive my

saying that you do not possess so good a Life; indeed, far from it. I have been asked not to say what I think of the two lives that you do possess. Well, I won't; but I rely upon you to agree with me in what I leave unsaid.

Such an adequate life of Kristo Das as I have in mind would set forth, one by one, the questions that it fell to him to deal with. It would show how he dealt with them; what temptations, as that of yielding to popular prejudice or clamour, he avoided; and it would show, I think, how painstaking he was, and how sane, moderate, conciliatory, reasonable and good-humoured he invariably was in a conduct of public business. Some of you may think that his spirit would condone the love of opposition for its own sake. From the words of at least one speaker on an earlier anniversary the impression is to be gathered that Kristo Das, daily after breakfast, girded on his sword, and sallied out to slay the dragon Government. It would have been an exciting life, no doubt, but Kristo Das was a seriously-minded man. He knew that perpetual strife leads to ruin, and impoverishment, and famine, and death. So whenever it was possible without loss of honour his inclination was to concur, or to acquiesce.

There will be something in the example that Kristo Das *might* be for you that cannot, unfortunately, be set forth in any life, but that must be supplied out of your own imaginations. One is not sure that it would not be the most valuable part. If Kristo Das, a vigorous man, were alive now, he would be no longer "His Majesty's Opposition," but one of the Ministers. One feels how he would have welcomed the opportunity that power would have given him; with what alacrity he would have entered upon his duties. Yes; but does not that show better than anything how little he cared for opposition for its own sake?

It is interesting to speculate upon the reforms to which Kristo Das would have set his hand, and to wonder what

opposition he would have met with, and from what quarters it would have come. You are in a better position for such speculations than I am, for you know so much more of your country and its needs. I will leave the speculation to you, then—but with a warning. It is, not to imagine that Kristo Das would always have known what to do, and would not sometimes have thought it best to leave bad alone, lest he make it worse. Above all, not to imagine that he would not sometimes have had to do things that he hated doing, and would not have done, if evil men had not compelled him to do them.

I have admitted that I am too ill-informed to speculate myself upon Kristo Das Pal's reforms, and that I must leave the matter to you. There is, however, one thing in which I know better than you do whether he would have taken action, and what action it would have been. I can imagine his hearing one morning, as you are all destined to hear, that the Imperial Library is being ruined. (If you want to know exactly how, come to Metcalfe Hall some day, and I will show you.) Kristo Das would have said, I am sure: Being ruined? Impossible! But I must go round and see. It would never do for a thing of such value to be ruined. It concerns us all. What should I have been without books? And he would have taken his umbrella and have come round, and something would have been done.

I have invited you to one speculation: I invite you now to another. Imagine that Kristo Das Pal has been a Minister for thirty years, but that his long labour is over at last, and that we have just returned from some farewell banquet, or from consigning his body to the flames. Much would be changed from thirty years ago, from the time when Kristo Das Pal first became a Minister. Many reforms would have been carried. Political and Municipal institutions would have been changed out of all recognition. But how much would remain unchanged? How many slothful men would still be slothful; how many dissolute men would still be dissolute;

how many ignorant and stupid men would still be ignorant and stupid; how many corrupt men would still be corrupt? Fools would be fools and knaves knaves. At bottom life in Bengal for you and for me would be what it was before—a fine thing only if we could make it so ourselves. A thought, that, calculated to bring home to us the fact, commonly lost sight of completely, that political institutions have only the value of the fruits they produce, and that those fruits may be very small. They are too commonly thought of as talismans, especially in this distracted country. A talisman is a thing capable of working wonders. My brothers there are no such things. The example of Kristo Das Pal even is not one.

What I have so far said was all that I intended to say to you, but when my notes had been read it was suggested that a little more elaboration of the part dealing with the life and work of Kristo Das Pal would be welcomed. What I go on to say you will please take as a postscript.

I do not really know enough of his life and work. (That, I may be permitted to say in passing, is more your fault than mine. You should have seen to the writing of a good biography). But I have learned something. He was a man of such obvious value, in whatever relation he might stand to you, that people were always ready to make a special law for him. If it was a question of the payment of a subscription to a club, Kristo Das, if a lad too poor to pay it, was especially exempted. If he got into a false position as a journalist, as once with a railway company, but, recognising his mistake, withdrew his strictures, and offered to pay the legal expenses, it pleased the other people to pay them themselves. One is reminded by that of the fact that the landlord of the house in which Carlyle lived for well-nigh fifty years did not raise the rent, because he felt that Carlyle was not an ordinary person. They all felt that Kristo Das was not an ordinary person. There was in his day an erratic, half-mad Lieutenant-Governor of Bengal, Sir George Campbell by name. He was always doing wrong

things, and Kristo Das had to keep a very sharp watch on him, and sometimes to speak of him with a somewhat sharp tongue. It is clear that Sir George, recognising Kristo Das's right to criticise, never really resented anything, and when one day it fell to Sir George to introduce Kristo Das to a newly arrived Viceroy, he did it in the manner in which a man introduces one friend to another. And that Viceroy already knew that Kristo Das was not an ordinary man. He had learnt as much while reading the India Office file of the "Hindu Patriot."

That brings me to another point. Someone had said something to this effect: "If Kristo Das could rise from nothing at all to a position of such eminence and influence, any Indian could do it." Mr. N. N. Ghose had heard this, or read it, and it had stung him. So he considered the whole matter, carefully no doubt, but I think with an unconscious bias, and this was his conclusion:—that Kristo Das owed almost everything to luck. That is a view that I cannot hold at all. There may have been some slight element of luck in his securing the Assistant Secretaryship to the British Indian Association. If there was, it was very slight, for Kristo Das, young as he was when they appointed him, had already distinguished himself. The luck was not in their appointing him, but in their having the sense to see that he was the man to appoint: they might have appointed somebody's nephew because he was somebody's nephew. The luck was theirs, not his. Then it has been argued that, having secured the Assistant Secretaryship, his getting the Secretaryship was only a question of time. Why so? Assistant Secretaries do not always become Secretaries: they only do so, if they do very well as assistants. Kristo Das did. It has also been argued that his holding the Secretaryship made his nomination to the Legislative Council a matter of course. Of all the argument that seems to me the weakest part. A seat on the Legislative Council is a coveted thing. Is it to be supposed that no member of the British Indian Association coveted it, and that, a wealthy and powerful man,

he could not have secured it by insisting a little on his claim ?

Again it has been argued that the "Hindu Patriot" was a successful journal, and brought its editor revenue and consideration, not because that editor was a remarkably able writer and journalist, but because it was the organ of a powerful political organization, a journal, therefore, that everybody was bound to take in and read. Well, in the same writing in which that is set forth, this also is stated : "Kristo Das Pal received the "Patriot" a dying concern, and left it flourishing." When it was a dying concern, when Kristo Das took it on, was it not already, and had it not for some time been, the organ of the British Indian Association ? When, after Kristo Das Pal's death, it began to go downhill, was it because it had ceased to be the organ of the Association, or because it had ceased to be remarkably well managed ?

You may be thinking that I am still not at very close quarters with Kristo Das Pal's work. It is true that I am not. I ought to be speaking about the Bengal Tenancy Act, the Vernacular Press Act, the Ilbert Bill, the Cotton Duties Controversy, the Calcutta Municipality, and so on, and the part that Kristo Das Pal took. Well, I cannot, and I cannot because the way had not been prepared for me. The view has been too readily taken that Kristo Das was occupied with the questions of the passing day : that they had their interest while that day still was, but have none now ; and that consequently there is nothing now to be said. (That is the attitude of mind, perhaps, that has led to so little of the history of India being written by Indians). That is not such a view as we Englishmen take, when it falls to us to write of such a man as Sir Robert Peel. We do not say : "How can people be expected to be interested now in Catholic Emancipation, the Reform Bill of 1832, the Bed Chamber Question, the Repeal of the Corn Laws, and the Bank Charter Act ?" We do not say that, but that the story of these questions must be told in full, for

without that telling the part that Sir Robert Peel played cannot be made plain, and so cannot be judged. It is the judging that is important, we think ; for we cling, pathetically perhaps, to the belief that there are lessons to be learned from history. We cannot assume that Sir Robert Peel always took the right view, or did the right thing. If we did, it would do Peel no good, nor us any either. It will do you no good to assume it in the case of your hero. Do you?

J. A. CHAPMAN

ON THE SUMMIT OF THE HILL

[From *Goethe*]

On the summit of the hill

Peace doth brood ;

Breezes, too, have grown quite still,—

In the wood

Quiet every leafy crest :

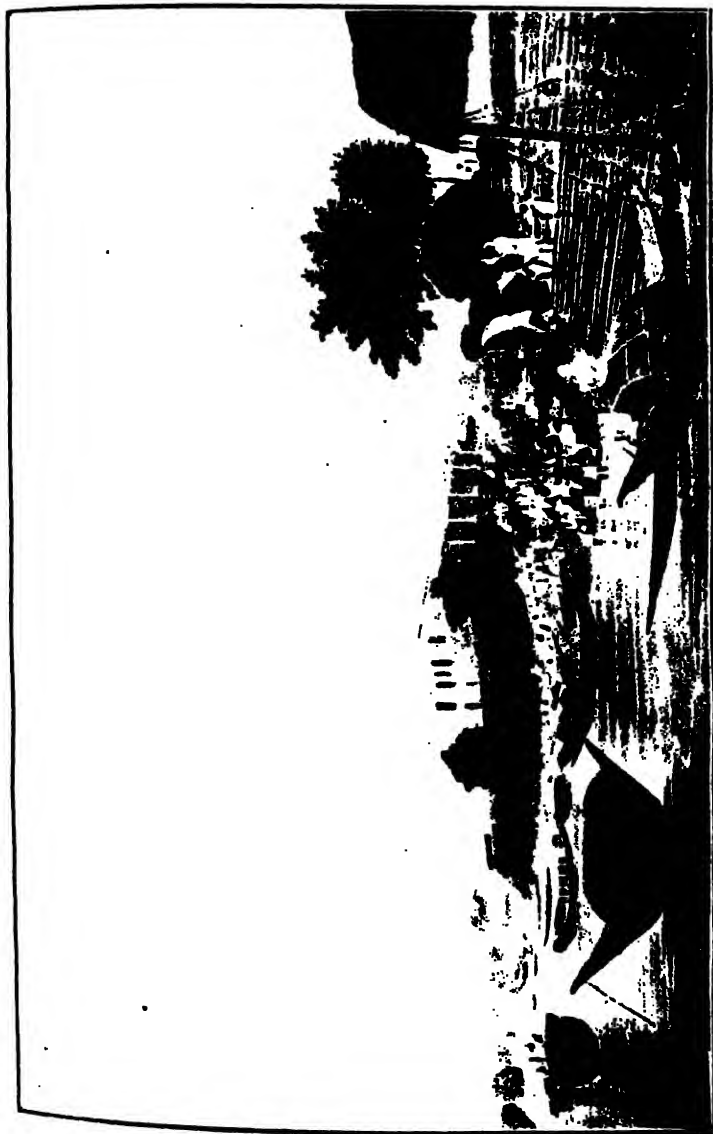
Woodland birds have stopped their song :—

Wait awhile,—

Ere very long,

Thou too shalt rest.

POST-GRADUATE

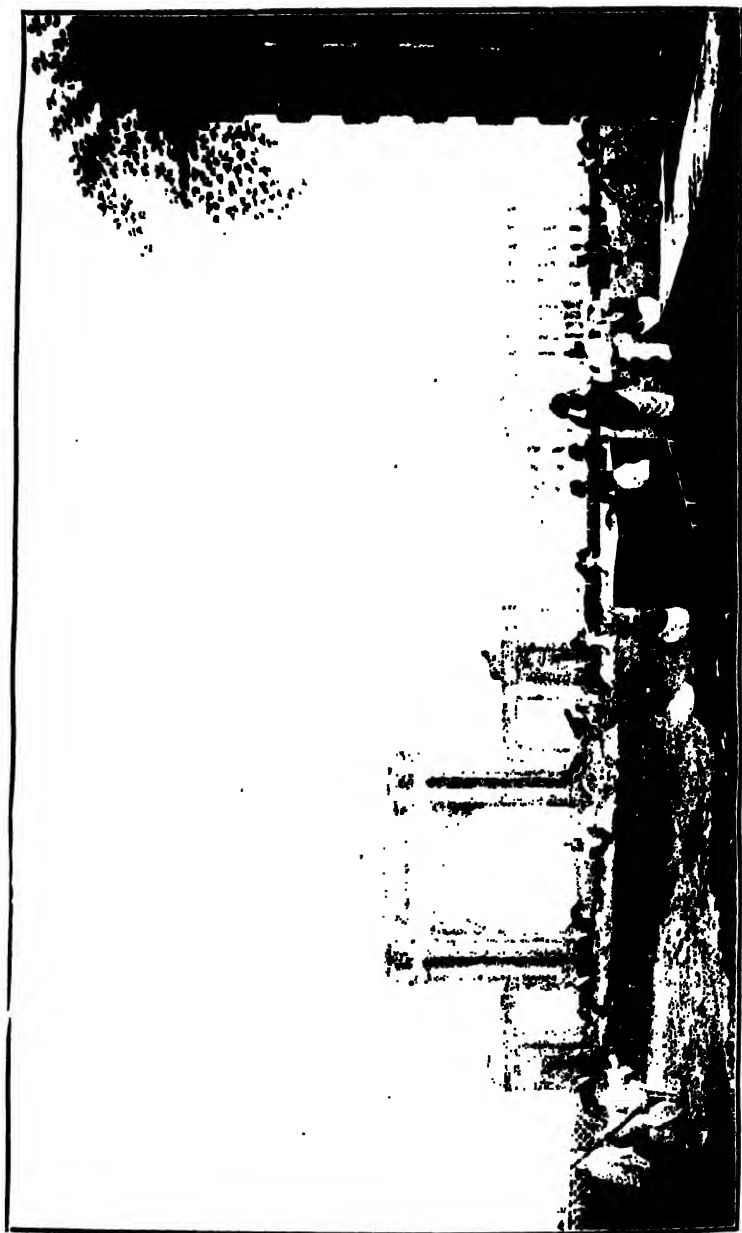
CALCUTTA IN 1824**(FROM JAMES FRASER)***By courtesy of the Bungalow.*

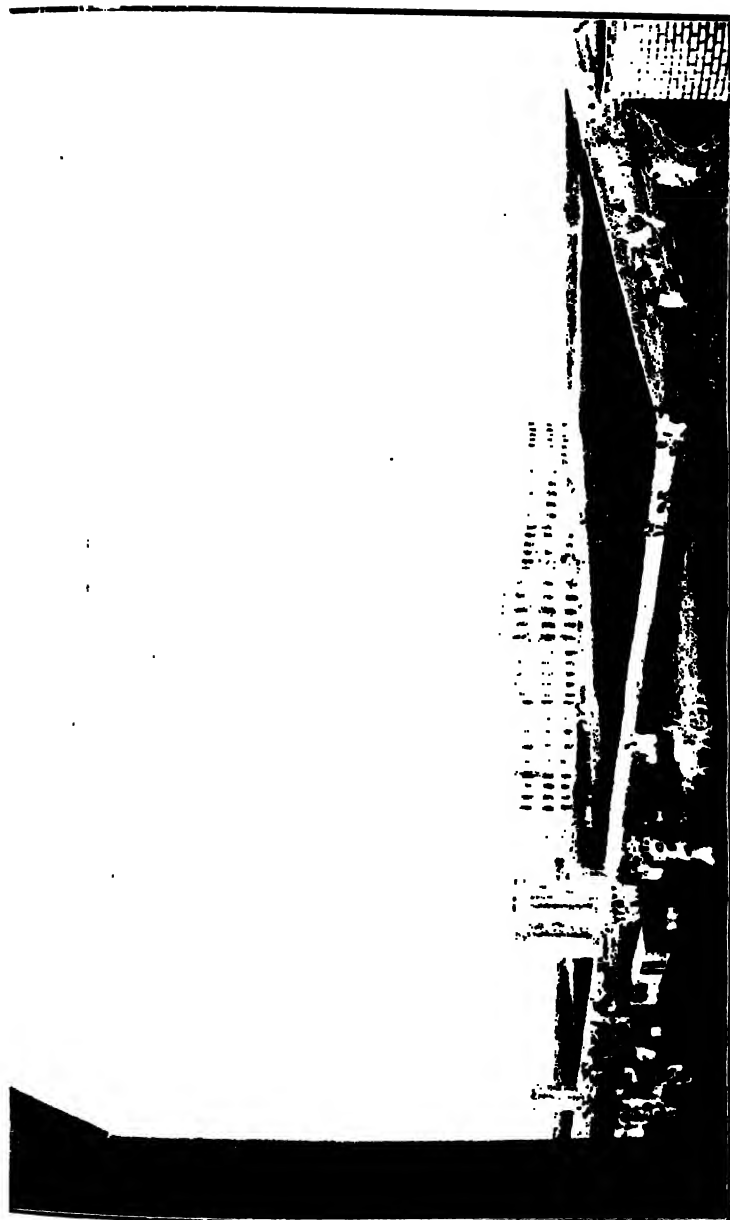
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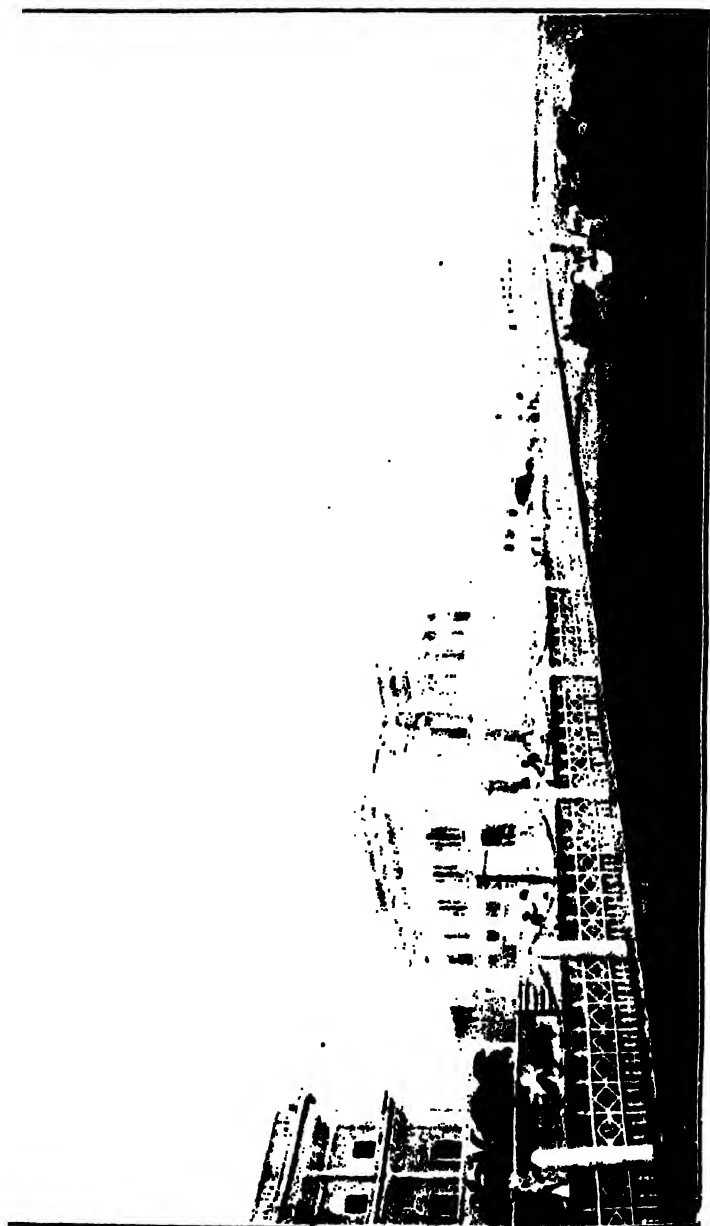


Esplanade Row. From the Collection of the Asiatic Society, Calcutta.





Government House (H. in the C. in House, Sec. 14)



THE ASIATIC SOCIETY OF PARIS—CENTENARY CELEBRATION

I arrived in Paris from Italy on the 8th of July. The celebration of the Centenary of the *Société Asiatique* as well as of the reading of the Egyptian hieroglyphics by Champollion fell on the eve of the French national *fête*—the 14th of July.

The first function in connection with the celebration was a social gathering—a tea party in the Musée Guimet, on the 10th, which was the first of many similar gatherings that were to follow. On the 11th, in the morning, there was a meeting in the hall of the *Société Géographique*, presided over by M. Sénart, and in this meeting congratulatory addresses were read by the representatives of various learned societies. In the afternoon at 4 o'clock, the solemn celebration of the Centenary took place in the grand *salle* of the Sorbonne, with the President of the French Republic in the chair. After the address from M. Sénart as President of the *Société Asiatique*, speeches were made by Dr. Lanman of America, by Dr. Thomas of the India Office Library (representing the Royal Asiatic Society as well as the Government of India) and by other gentlemen, among whom were the representatives of the Italian and Egyptian Governments. The general tone of the speech of Dr. Lanman (which was in French) was remarkable for the broad spirit of respect and sympathy which it manifested for the East and for its insistence on an attitude of frank fellowship towards Eastern peoples which Western Orientalists above all should show. Dr. Thomas's address was no less happily conceived, and broad-minded, and he fully recognised the value of the work done by Indian and other Eastern Scholars working along modern lines. The meeting ended with discourses from the French Minister of Public Instruction and from M. Millerand.

In the evening, M. Sónart gave a reception to the delegates and members of the *Société Asiatique* at his residence.

The next day, the 12th, there was the morning sitting at the *Société Géographique*. There were, as on the day before, addresses of felicitation from various learned bodies, and there were also a few communications of a scientific character from some of the mentalists assembled. I took this occasion to say something on behalf of the University of Calcutta, and of those Indian Scholars who know and appreciate the value of what has been achieved by the oriental scholarship of the West. I read a brief speech, on the following lines: the greatest gifts are spiritual, and to my mind the greatest gift that we in India have received from the West is that her scholars have helped to reveal to the world and to ourselves our past—have helped us to know ourselves properly; and not only have we in India benefited from it, but the West as well, and the whole of the civilised world: thus, for example, the real Buddha, the real Asoka have once more been established in Indian life, national and individual, as great exemplar of spiritual aspiration, and they now inspire and encourage men all over the world, and their voice reaches all. Our scholars have conserved carefully as a priceless heritage the treasury of ancient Indian thought and culture, and the West now has undertaken to distribute it for the benefit of man everywhere. A broad humanism, a liberal spirit of curiosity, which received its life, so to say, with the living touch of Indian thought symbolised by Sanskrit, over one hundred years ago, manifested itself in the birth of oriental studies, in the work of the great scholar—discoverer of Europe in the early part of the nineteenth century: the same spirit also showed itself in India at the same time, and it found its expression in the wide-spread desire for western learning, and incarnated itself, in Rām Mohan Roy. We are, however, grateful to the savants of the West, conspicuous among whom are those of France and

The Calcutta Review



RAMMOHUN RAY

(Died at Rishik, 27th September, 1833.)

By the Proprietors of the Calcutta Press.

her *Société Asiatique*, for helping through means direct and indirect to bring about an intellectual renaissance in India ; our young men are coming forward, inspired by their noble example : for all this we can only offer our cordial felicitations to *Société Asiatique* for hundred years of labour which is far-reaching and abiding in its results, although not apparent from outside.

M. Sénart was in the chair, as on the day before.

In the afternoon, there were more functions of a formal or social nature—a meeting in the Egyptian galleries of the Louvre to celebrate Champollion's discovery, a reception at the residence of the Director of the Musée du Louvre, and a *soirée* at the mansion of Prince Bonaparte.

The next day, on the 13th, there was the usual meeting in the morning at the *Société Géographique*, and Dr. Vnvalé made two communications bearing on religious life in early Persia. In the afternoon there was another reception, one given to the delegates by the Municipality of Paris at the *Hotel de Ville*. The celebrations terminated with a banquet given by the *Société Asiatique* at the Hotel Palais d'Orsay. After dinner, there were speeches from M. Sénart, and from some of the guests, and the speech of the French Minister for Colonies was an eloquent plea before the orientalists to help to bring about brotherhood in the world by teaching the Western peoples about the greatness of Eastern Cultures.

The celebrations of the Centenary were thus brought to a close. The whole function was entirely successful, and the personality of the eminent President of the *Société*, M. Sénart, with his perfect courtesy and charm of manner, will remain long in the memory of the delegates from distant parts. I am glad that there was some one to represent (howsoever unworthily) our University on such a unique occasion.

THE PROBLEM OF ENGLISH IN THE EDUCATIONAL SYSTEM OF BENGAL

The Recommendations of the Commission :

It is evident that the report of the Calcutta University Commission has not produced a final settlement of the problem of the medium of instruction and of the place of English teaching in Bengal.

The Commission's recommendations were :—

- (1) More attention to the vernacular as a method of mind-training.
- (2) Reduction of the English medium up to the present Matriculation stage but its retention above that stage.
- (3) Adoption of improved methods of teaching English (*viz.*, use of modern phonetic methods, also wider reading).
- (4) More drastic tests of "practical knowledge of English." (This appears to mean ability to *speak* and *write* modern English).

In general the Commission's aim is "to make the educated classes of Bengal bilingual."¹

The problem of the medium of Instruction and of English teaching in Bengal is a form of dilemma. Whether class subjects such as History and Geography are taught by the teacher in Bengali or in English or not hardly affects that dilemma which is—

(1) If a boy knows no English or little English he cannot be given a higher education nor indeed can he do much to educate himself after he leaves school for the vernacular gives access only to a very limited library.

¹ Vol. V, p. 44.

(2) If the boy learns enough English to prepare him for higher education, he does not have time to learn other subjects. His schooling is over-burdened with English. He is bilingual but uneducated..... . Whereas the vernacular boy is educated (as regards mere school subjects) but not bilingual : he has opened the door to an almost empty room. Thus the dilemma is Bilingualism or Education.

There is but one way of avoiding this dilemma, namely, to reduce the time given to English which increases by the efficiency of the reading, done in the time. The abolition of the English 'Medium' will certainly improve the work in History and Geography and those other subjects in which it was previously employed, but even so the present allotment of time to the subjects other than English is inadequate. We must save time on English if improvement is to be made elsewhere—in the teaching of the Vernacular for example, as the Commission suggests.

Time may be saved in two ways ; we may retain the present requirements and the present syllabus, and hope to get the same or better results by more efficient means of instruction ; or we may reduce our demands while still aiming at improvement of teaching so that what is set down shall be done well.

There is no doubt but that a very great deal could be achieved and a good deal of time saved by improved methods and we may reasonably hope that something will be achieved since a good class of men is being attracted to the profession by the recent improvement of pay and prospects. But improved methods require training : the training course is very short, and the number of men trained annually is not large. We may hope for steady improvement from this direction, but we cannot hope for any large and immediate change, nor can we hope for a large and universal saving of time.

The problem, therefore, which we have to consider is whether it is possible, without assuming higher teaching

efficiency than either exists at this moment or can exist universally in the near future, to reduce the time devoted to English without seriously impairing the value of the study of the boys' education as a whole.

In considering this problem, as in considering every educational problem, it is extremely necessary to distinguish between the needs of the Above-average, the Average, and the Below-average boy.

The Super-normal Boy :

The super-normal boy has never had any great difficulty in coping with the English education of the High School. Now, the High School was originally intended specifically for the super-normal boy, and a generation ago when High Schools were fewer and secondary education was more of a luxury, these schools were attended chiefly by super-normals. They found no difficulty in following the course or in mastering English. Sir Gooroodas Banerjee was not an educational failure !

Since those days the standard of a boy attending the High School has dropped. The High Schools are no longer of super-normals but of all classes of boys of all grades of intelligence.

This process has arisen very naturally out of the original policy of the Directors.¹ The incentive to education where it is not compulsory is most usually ambition ; hence if the vernacular schools 'lead to nothing,' if they are admittedly intended merely for those who will follow their fathers' humble footsteps, the ambitious boy and the boy of ambitious parents will not attend them. All parents who send their sons to school without compulsion are ambitious. It is obvious from the figures of any quinquennial report that it is only in so far as the Primary School leads to the High School that it is attended at all, namely it is only those classes in the Primary School which are below the lowest class of the High School, that are attended in any perceptible numbers. The result has

¹ Vide 'Education, Selective, Specific,' Longmans Green and Co., 1917.

been that the High School to a large extent has taken the place of the Primary School : it has become the People's School, and it contains, therefore, a large number of boys who will not go on to the University or are at least not really fit to do so. The boy who will go on to the University and the boy who will not go on to the University require a different sort of education, for the boy who will go on to the University is presumably more gifted and can master a heavier curriculum, can do extra English in addition to the other subjects. It is impossible under present circumstances for a teacher to give higher English education to those who are worth it without neglecting the majority who have really no place in the High School at all.

If we could differentiate the cleverer from the less clever boys, if we could make our High Schools really "High"—that is, better class schools for the cleverer boy, as are the Secondary Schools in other countries,—we could indeed "make the educated classes of Bengal bilingual." But at present the schools are more than half filled with the children of the uneducated classes and not even the cleverer children of the uneducated classes.

The recent non-co-operation phenomena in the schools were partly a natural re-adjustment of this anomaly. A system of compulsory primary education will do still more to adjust it. Still more will be done when modern methods of teaching are introduced into the schools by means of the newly trained teachers. These modern methods are based on the results of the study of individual differences, and aim at the production of individual progress. If then the pupils of a High School are already a selected group, namely the "better-class boys" and scholars from the primary schools, and if the teacher still further selects them and makes them progress according to their individual abilities, it will certainly be possible to fulfill the recommendations of the Commission and achieve bilingualism and 'practical English and phonetics'

in the case of the better boys, at least those who are really worth University education. This will be the easier in as much as most of such boys hear English spoken in their homes, and see English books and papers.

The Problem of the 'Average' Boy :

This consideration may do something for the best twenty-five per cent. of boys ; but it does nothing for the average boy. The average boy means the middle fifty per cent. We are justified in neglecting the lowest twenty-five per cent. since they hardly have time for much English. The upper twenty-five per cent. who alone constituted the population of the high schools thirty years ago, were then able successfully to cope with a bilingual education and are able to do so now. The crux of the problem is the "average boy."

The 'Average Boy' cannot simultaneously master English and also find time for sufficient education in other subjects. This situation has led some to propose the drastic remedy of cutting out the English, to propose that the whole education of the ordinary or average boy be given in the vernacular. All arguments for vernacular education add a rider regarding the translation of the necessary books into vernacular and pre-suppose the possibility of building up in the near future a wide vernacular literature in the sciences as well as in the arts.

The normal edition of a book on any technical subject which is intended to pay for itself is some 4,000 copies. A book written in English sells in England, America, Canada and Australia, whereas a book written in Bengali sells in Bengal alone, written in Hindustani sells in India alone. There are perhaps not more than a few dozen of people in India interested in an advanced text-book on statistics and of these perhaps one dozen are in Bengal. It is obvious that neither the Bengal nor the India sales alone could make it worth while to a publisher to produce a book on this subject.

A less limited subject might sell in India alone—*e.g.*, a book of general Higher Mathematics, whereas only books of very universal appeal—dictionaries, text-books and novels can be published for a single province alone. The argument for a purely vernacular education is based on the assumption that although there are not books at present available in the vernacular to form the basis for even a High School education, yet, were the vernacular more used, books would be translated and composed. There are two forms of this argument—the one would have Hindustani as a universal language of education for all India, the other would have Bengali as the language for this province alone.

If education were a matter of text-books only the language of education might indeed be Bengali: if it were a matter of text-books only and a certain amount of outside reading, the language might be Hindustani; for one could without fear of pecuniary loss translate Wells' "Outline of History" or Buchan's "History of the Great War" into Hindustani, though a Bengali translation would be a very precarious venture. Unfortunately—or rather very fortunately—education is more than this. In the past in Europe and America mere text books and a little extra reading were considered sufficient material for the education of a boy because it was assumed that it is what a boy learns at school that matters,—that school is a place for producing knowledge. It came as a shock to the psychologists of the American army to find that in a country in which primary education is compulsory there were one million men out of a total of four millions tested who were unable to read and write well enough to be examined as literates, and the majority of these *had* been to schools.¹ Schooling achieves nothing unless it teaches a boy how to learn and forms in him the habit of learning; otherwise the boy relapses into illiteracy at the first opportunity.

¹ Measurement of Silent Reading, Burgess, Russel Sage Foundation, 1921, pp. 1 and 2.

An education which goes no further than text-books cannot be of permanent effect. Literacy is not a knowledge but a habit. The skill and habit of study cannot be formed and maintained with "a few text books and a little outside reading": it assumes a wide and fairly varied library.

The range of subjects in a High School curriculum is comparatively limited, yet even there for a fifteen years old boy to read up the geography of Brazil would need a fairly wide range of rather specialised books of which a sale of 4,000 copies each in Bengal alone is impossible, and in India highly improbable. The needs of life are very much wider and more specialised. A boy is taught to learn at school so that he can find out things for himself when he goes out into the world. The boy becomes a cabinet-maker and wishes to find out about wood-stains and french-polishing, starts a garage and wants to read up how to time a four-valve engine. It is inconceivable that there should within predictable time, even assuming the most rapid rate of education, be a reading public in Bengal willing and able to buy 4,000 copies (or probably far more would be necessary in the case of an illustrated volume) of a book on such subjects as these and buy it so quickly that the publisher could bring out a new edition as soon as the first was out of date (*viz.*, within two years—for the garage). We have been discussing bare profits: four thousand copy editions are not very profitable and are not very cheap. Popular learning needs cheap editions; cheap editions must sell in tens of thousands in order to give a sensible return on their narrow margin.

It is no use producing literacy if there is not the literature to maintain it. The literacy produced by a secondary education demands more than the vernacular alone can ever provide.

English as a Naturalised Language:

If, then, English cannot be cut out altogether it is possible to reduce the time spent on it. In making any such reductions

it is necessary to reduce the inessential things while leaving untouched the essential. If we merely cut so many hours off English in the Time Table, there is no knowing from where the time will be taken, probably from essential and inessential equally. When we reduce the time we must reduce our demands, and it is the less essential demands which must be reduced.

“Better methods of Teaching” as recommended by the Commission mean methods of teaching which lay more stress on the essentials, methods which formulate a clear useful aim and go straight at it. The Commission in recommending in page 41 (Vol. II) of the report better methods of teaching English appears from the subsequent pages to be thinking chiefly of better methods of teaching English pronunciation.

“We have in Calcutta,” says the Report, “heard teaching of an English class... . in which we were unable to understand a single word which passed between the teacher and the taught.” We may set beside this another quotation from elsewhere.¹ “As to the language they (American school teachers) speak and profess it is so unlike English that literally I find it difficult to catch their meaning when one of them speaks to me direct and quite impossible when they talk to each other.”

The writer knows from actual experiment that a very great deal can be done in a surprisingly short time to improve the English pronunciation of a Bengalee. The errors which differentiate his pronunciation from that of an Englishman are comparatively few,—about a dozen in all, and of these all but seven (the vowel sounds) can be cured almost instantaneously. (The intonation of course is a much more difficult matter). Improved results in this respect are not going to take up much extra time. They depend on an output of more trained teachers who have learned the art of teaching pronunciation. But we are not discussing how results can be

¹ An Englishwoman in the Philippines. Mrs. C. Dauncey, John Murray, 1906. 12.

improved without increase of time ; we are discussing how time can be saved. Since practically no time is now spent on English pronunciation, improvement of method in this respect will not effect any saving. Moreover the two quotations given above are to be noted. English is to a large extent a naturalised language in India. The super-normal boy who in after life will hold higher positions in official or business organisations may need to speak English to Englishmen and to Indians of other provinces. The same applies to Americans. But the average boy speaks English mostly to his fellow countrymen to whom his phonetic errors are inaudible, just as the American twang is imperceptible to an American. We might then be led to consider whether it is worth while spending any time at all on the English pronunciation of the 'average' Bengalee boy. We might even go further and apply the same argument to vocabulary : if an American is allowed to talk of "side-walks" and "trolley-cars," why should not the Bengalee in whose country the English language is also 'naturalised,' talk of "half pant" and "family members" ?

The Problem of the Below-average Boy :

If we do not demand a high standard of idiom and pronunciation we might possibly meet the needs of the average or even slightly above average boy. He might in the time available manage to learn Indian English and also obtain a reasonably wide education in other subjects ; but we have not helped the below-average boy, the boy who will not hold high positions in official or business organisations, who will not even hold low positions where Indian English is needed as a medium of communication, but will probably be one of the more useful *Many* on whom the ultimate prosperity of the land depends. Such a boy who is here discussed will undertake an education lasting up to the age of perhaps sixteen and then become a skilled workman or a small retail dealer.

On his behalf we may make a brief excursion into the psychology of language.

The process of silent reading involves (1) visual recognition of the word; and (2) association of an idea with the word-form recognised. In the reading of the mother-tongue this process of recognition does not involve perception of the individual letters which make up the word, nor even of the individual syllables: it is possible to change several letters in a word without the reader perceiving any difference. Thus Zeitler¹ finds *Analomie* read as *Anomalie*, *Retoranda* for *Ritardando* and so on. To this phenomenon is due the special difficulty of correcting printer's errors. Certain arts of the printed word dominate the beginning, the letters which project especially those projecting above the line. A whole phrase such as "once upon a time" may similarly be recognised as a unit. There is no reason to suppose that this process does not apply to the reading of a foreign language: we recognise words by their general shape. In the mother-tongue most of the words are words which we meet in speech and in our handwriting: this, however, is mere accident. We do not think of the spelling or of the pronunciation of a word when we are reading silently, or at most the pronunciation is a mere skeleton. In reading a foreign language it is possible to read a word which we could neither spell nor pronounce if called upon. Thus there is a word in Bengali "Gat--some compound letter and some other letters -n" which means 'get up': the writer can neither spell nor pronounce it, but recognises it as readily as any other word. This is a probably common experience. Thus the mere ability to recognise the printed words of a language and associate them with meaning, is an independent function: in other words, it is possible to read a foreign language silently without being able to speak it or pronounce it or write it.

Now the speaking of a language (as in reading aloud) involves (1) the ability to produce certain sounds: as we

¹ Huey E. B. *Psychology and Pedagogy of Reading*. New York, Macmillan & Co., 1910. Ch. IV.

have seen already to learn new sounds which are not already a part of one's repertoire is a laborious process. (2) It involves ability to interpret signs into sounds. In the case of a language such as Bengali this is easy as it is necessary to make only some seventy or eighty bonds (*viz.*, one bond for each letter and each form of that letter since the spelling is phonetic). In English which is not phonetic almost every other word requires a separate bond for one can never trust the spelling to be phonetic.

The ability to write a language as in copying out a book involves a further set of bonds; one must learn the detailed shape of the letters and the correct procedure in forming them. These are difficult bonds, since they are acts of skill. It is not a matter of mere knowledge but of ability to do and to do well and quickly.

The ability to speak a language without book requires the further set of bonds usually designated as 'Grammar.'

These bonds are rather difficult because they are not mere matters of knowledge, but matters of habit. It is not sufficient to know that a verb must agree with its subject: it is necessary to have the habit of making verbs agree with their subjects so strongly rooted that even in great excitement, or distraction, even in sleeping-talking the rule would be observed. It involves also a special knowledge of idioms; this knowledge is again not a mere "Recognition knowledge," to know what the idiom means, but a set of habits of using certain idioms in their right places.

Ability to speak connotes the further ability to understand speech, which involves a still further set of bonds. It is found in telegraphy the 'Sending' is easier than 'Receiving.' Possibly the same applies to language. Most people speak better than they understand, and sometimes even have to repeat a sentence to themselves (thereby transposing the bond) before the meaning dawns.

Ability to write involves certain habits which make up 'style' and 'choice of words.' It involves the bonds which make up "spelling" and "punctuation."

It has become obvious from the above that to speak or write a language is a much more difficult thing than to read a language silently, and it is possible for one to reach the highest degree of ability in any one of these departments of language with little or no ability in the others. One may speak without writing, write without speaking, read without writing or speaking.

Thus the 'bonds' involved in a language may be classified as—

- (1) *From Idea to Speech—viz.,* ability to speak the language.
- (2) *From Hearing sensation of speech to Idea—viz.,* ability to understand the language when spoken.
- (3) *From Idea to Writing act—viz.,* ability to express ideas in writing in the language.
- (4) *From Sight sensation of written matter to speech—viz.,* ability to read the language aloud (without necessarily understanding it).
- (5) *From Sight sensation of written matter to Idea—viz.,* ability to read the language silently and understand it.

The most difficult of these are (1) and (3) because they involve the formation of new acts of skill, whereas (2) and (5) merely involve recognition (No. 4 will be difficult if we insist on pronunciation, and if the language is not phonetic. Otherwise it is merely a matter of recognising letter and making sounds in which we are already proficient).

Let us now take some extreme cases of persons having specific needs in reference to a foreign language. (1) A scientist wants to keep in touch with German scientific journals. (2) A traveller will be passing through France.

(3) A business man wants to do his own correspondence with his French agents.

The scientist does not want any bond but No. 5: for this one specific purpose he does not need to write or to speak German. (A similar instance would be a man who wishes to read the Latin or Pali classics in the original).

The traveller above all needs ability to speak, less urgently, ability to understand speech, and still less urgently, ability to understand written or printed matter. Most English women in India get on with No. 1 (speech) and a very little No. 2 (understanding speech) and nothing more.

The business man for the purpose of writing letters needs primarily No. 3 and secondarily in much lower degree No. 5, for he may write a perfect letter, but be rather slow and laborious compared with a Frenchman in understanding a letter which he receives. (These last are the requirements of the Calcutta Matriculation examination).

Let us now arrange these bonds in order of importance to the lower twenty-five per cent. 'Average' Bengali Boy.

No. 1. Idea *to* English speech. All his countrymen know Bengali, and as he is a 'below average' boy he is not likely to go outside the province. This (ability to speak English) therefore is not very important.

No. 2. Hearing of English speech *to* Idea. The same argument as above applies to this (ability to understand spoken English) also.

No. 3. Idea *to* English writing.—If he is in business (*e.g.* a shop) he may need a little for writing business letters.

No. 4. Seeing printed English *to* speech.—This (reading aloud) is obviously quite useless—(although it is the bond most practised in the schools).

No. 5. Seeing printed English *to* Idea (*viz.* ability to read English silently).—All technical knowledge, all recent thought, all that Bengal produces of interest to the world is written in English and must, as has already been argued,

for an indefinite period continue to be written in English. For any fact or thought which is not of interest to from 40,000, to 100,000 people in Bengal who have money to buy a book (assuming—which is liberal—that ten per cent. of those interested are able actually to buy the book) he must turn to English.

We have already stated that bonds do not act equally in both directions, they are predominantly “one way currents.” Still less does the formation of one bond thereby establish automatically another quite different bond. One may speak and write English without being able to read it, and *vice versa*. It is, therefore, unnecessary to teach speech and writing for the sake of reading ability. To read a language silently is the easiest of the five bonds (because it involves no additional skill, merely recognition). We should, therefore, start with the easiest bond,—and it chances that it is also the most important. We may go on to the other less important as well as more difficult bonds if the boy has time and ability. The more ability the boy has, the more will he need these bonds and the more will he be able to master them.¹

Let us suppose that the lowest 25 per cent, *viz.*, Group I of the school population, do not go to the High School, that Group II goes no further than the High School, Group III goes no further than the Intermediate, Group IV includes those worth a Pass or Honours course in the University. We may now formulate a scheme.

Tentative Proposals :

We have suggested that the below-average Boys (Group II) should be given the ability to read English rapidly and get

¹ (This doctrine assumes that in most cases a boy who is clever at other things will be clever at learning English. This, as a general rule, is found to be the fact; the co-efficient of correlation is fairly high. The exception is drawing and manual skill which has a low correlation with foreign language, and with most other school subjects. But most manual occupations for such success as would justify higher education need more than mere manual

the meaning: we may suppose a test of this ability as the main (and sole compulsory feature in English) in the High School Leaving Examination. We may also suppose a similar though more severe test at the Intermediate Leaving Examination, and again a still more severe test at the close of the graduate course. We may make the speaking of English, the understanding of spoken English and the writing of English optional at the High School Leaving and Intermediate College Leaving Examinations.

For *entrance* to the B.A., B.Sc., courses (as distinguished from the leaving of the Intermediate College) we may demand the writing of English as compulsory, also the speaking of English, and understanding of English spoken by a Bengalee. Understanding of English spoken by an Englishman might be demanded only in the case of Honours candidates.

This very greatly reduces the amount of English necessary for an education up to the end of the Intermediate stage. The Intermediate Colleges are more closely allied to the schools than to the University: thus the nett result is to provide a secondary education which requires only the fifth bond, which is at once the easiest and also for the Bengalee, the most useful. Those who are fit for University education, namely Groups Three and Four, will doubtless study some speaking and writing of English as optional subjects at an earlier stage, and they are well able to do this without prejudice to their other branches of education. Others also who will need it for their future vocation may take English Speech, or English Writing, or both, as optional subjects if they please.

The Practical Difficulties:

It would be justifiable at this point to close this discussion, if it were a merely theoretical ventilation of the subject. For the practical educator and educational administrator

skill. The example of Surgery is pertinent. On this see, Starch, *Educational Psychology*, Macmillan, 1919, p. 55: C. Burt, *Distribution and Relations of Educational Abilities*, I. C. C., 1919, p. 61.)

the difficulties are here just beginning. It will probably be of interest even to persons not directly associated with the work of education to indicate briefly what those difficulties are.

As far back as 1915, if not earlier, the Calcutta University endeavoured to encourage wider reading of English by framing a list of books for the purpose, and endeavouring by means of the examination to ensure reading of them. This scheme has been tried before: there is a somewhat similar system in the public schools common Entrance Examination in England.¹ The weakness of any such scheme is evident. Unless the reading of these books is made to carry a high value in marks, they are apt to be neglected. If wide questions are set merely on the main incidents and the plot, the door is thrown open to the simplest sort of cramming Robinson Crusoe in a vernacular nutshell. If questions are set which cannot be crammed they tend to become abstruse and to demand an intensity of study which is quite impossible with so large a range of books. Moreover the intention of the curriculum is to encourage rapid easy reading which "tears the heart out of a book" and this purpose is not achieved if the students study the books in such a minute manner as to be able to answer abstruse questions.

An alternative form of test is to set from one of the "recommended" books a passage for translation into the vernacular. The more the boy reads the recommended books the more likely is he to come prepared for his "Unseen" Translation. The objections to this scheme are that a passage of perhaps fifty lines is a very poor test of reading extending over some 20,000 lines—(or more). It is not much of an encouragement for a boy to be told that he will be set one out of four hundred or more alternative passages. A second

¹ The Teaching of English in England, H. M. Stationery Office, 1921, § 96.

² In the case of a foreign language there is also the Rote Memory factor of vocabulary. This could be eliminated to show pure silent reading ability by means of a separate vocabulary test. In practical school examination there is no point in separating the two functions.

disadvantage is that unless the books are changed every year the school will reduce what is a reasonable amount of wide reading for one year, to an amount which if studied in one year is no criterion at all of ability to read English widely and rapidly. For the school will spread the recommended books over two or even three pre-matriculation classes, setting it in lieu of the ordinary texts and for *intensive* study. The third and most real disadvantage is that such an examination is not a test of nor an incentive to the type of the reading ability which is aimed at by the curriculum, which is also most useful in life, namely the power rapidly to get the substance of a book, or to extract from a book a particular fact or group of facts, irrelevant matter being neglected.

The boy in the Examination Hall sits down like the English boy with a Latin unseen, to 'puzzle it out' word by word. Such a process is not going to help the motor mechanic to get the 'tip' he requires in valve-timing from a comparatively large volume on general motor engineering.

Even then if we admit the proposition that the most important aspect of English language to the Bengali youth is silent reading ability in English, we may reject a scheme of studies such as that proposed above, on the grounds that it would be impossible to examine it. It is impossible to enforce a curriculum without maintaining a standard; and it is impossible to maintain a standard without means of testing the end-product. The tendency has, therefore, been to express pious hopes in regard to 'Outside Reading,' to issue lists of recommended books, but actually to give little weight to the outside reading by means of a low-marked test, with the result that the work of silent reading is treated by the school master as of secondary importance or no importance at all. Nor will raising the marks in the test have any effect in producing silent reading in the schools if the test does not really measure silent reading and can, therefore, be prepared for by other means than by doing silent reading.

The more specifically and accurately the test measures silent reading and silent reading alone, the more will it produce the practice of silent reading in the schools. A perfect test can be prepared for in no other way than by direct practice of the function tested. Thus the whole of the above scheme, however attractive it may appear in theory, depends on the devising of an effective test of silent reading ability in English for the Bengalee boy. Obviously we have none at present.

Both the forms of examination discussed above (namely, questions on the subject-matter of certain recommended books, and passages for translation selected from certain books recommended for silent reading) aim at discovering whether the boy has gone through a certain set course of silent reading. They test this by measuring what he remembers of the course : thus they are intended as tests of knowledge. Whereas silent reading is predominantly an act of skill. The first form of examination is equivalent, in terms of an examination intended to discover whether a person can ride a bicycle, to asking him to describe the scenery in a certain ten miles.

The test of knowledge and the test of skill are fundamentally different things. Examinations depend on the probability of sampling, but it is a different sort of sampling and probability in the case of the test of skill. A knowledge course consists of some thousand items or facts : the examination takes a sample of (say) ten ; of these the examinee knows five : he thus obtains a fifty per cent. mark and is recorded as being of 'average' merit. It is thus assumed that if he were asked a hundred items, he would know fifty ; if he were asked the full course, he would answer one half of it. There is evidently a very large probability of error in an examination of this sort. It has as much accuracy as an estimate of the variety of stock of a motor car showroom made by asking to see five different machines named at random.

A test of skill is a totally different type of test and has a higher probability value. The acquirement of an act of skill, *e.g.*, writing, consists in the formation of certain bonds. When we exercise the skill we utilise practically all these bonds. The test is, therefore, a sample performance and is usually measured in terms of amount of work done in a given time. It is analogous to a trial trip as a test of the running of a car and has obviously a greater probability value than a sampling of more or less independent items.

Most school examinations (except Drawing, and Hand work, Parts of Junior Arithmetic, Handwriting) are knowledge sampling. The higher one proceeds in the educational scale the more exclusively are the knowledge-sampling-examinations. Yet the skill sampling has a greater accuracy as a test.

The recent developments of educational tests in America and England are largely concerned with the skill subjects, and it is naturally found that these tests measure educational skills more accurately than knowledge-sampling-examinations measure knowledge.¹

Problems for Investigation :

The purpose of this rather technical digression is to show that there is reasonable ground for hope that it should be possible to measure fairly accurately the English Silent Reading ability of a Bengalee boy, especially since this is (for certain reasons which need not be discussed) in some ways an easier task than that of measuring the English Silent Reading ability of an English boy. It would cost some money and some time to work out the exact form of test most effectively and to establish its norms. Some experiment on teaching method

¹ There are fourteen well known tests of silent reading at present in use in England and America. There are also several other less known tests. See Monroe, Devoss, Kelly, *Educational Tests and Measurements*, Houghton Mifflin, 1917, Ch. III, for description of the older tests, and *Journal of Educational Psychology*, XII, 7 and 8 (Oct.-Nov. 1921) for a study of the reliability and validity of all the more important American tests. C. Burt, "Mental and Scholastic Tests" (London County Council), 1921, pp. 275 and 343, for an English test.

would also be required. The fundamental problem for investigation is the amount of improvement which can be attained by an average or below-average boy of High School stage in the one easiest function of language, namely, Silent Reading, if practice in that function is made the chief part of the language work, or even the sole study.¹ Is it possible to have an average boy in the fifth year of the High School reading English so fluently that the school library is of use to him; and an average boy of the seventh year able to skim or study any book suitable for his years? If this is possible the scheme proposed requires very serious consideration, for it means that in place of the present-day Matriculate, of stumbling English speech and unintelligible writing, of narrow knowledge and little impetus or ability to learn, we may hope to produce a boy to whom the world of knowledge is open, a boy able, accustomed, and anxious to explore it.

A large number—even a majority—of educated Bengalees² to-day are not educated, for they do not read: they cease learning when they leave school, and what they learned at school, they soon forget. They do not read after leaving school because there is so little range of reading matter in the vernacular and they do not possess the power of reading English with ease and pleasure.

MICHAEL WEST

¹ A beginning on some of these problems is being made.

² The reader will find it interesting to observe how few Bengalee graduates can read silently a passage of English without making lip-movements.

THE ROOTS OF CHRIST'S TEACHING

At present a controversy is proceeding in the magazines between Mr. C. F. Andrews and Dr. Farquhar as to whether Christ's teaching had any roots in that of the Buddha? Following the footprints of my adorable Master, who has taught me to seek truth, I do not desire to hold the brief either for Mr. Andrews, who said, some of the teachings of Christ, were, some centuries before him, taught by the Buddha, or for Dr. Farquhar, who contradicted him saying, they had their origin in the Old Testament. To me, an outsider, it appears that Dr. Farquhar has not succeeded in convincing the man of the street that some of the teachings of Christ had not their roots, most probably, in those of the Buddha, just as the Buddha's had their basis in those of other previous personages.

Dr. Farquhar in his criticism of Mr. Andrews' statement, referred to above, expresses wonder that after the lapse of several years of his writing his letters, containing such an opinion, he still sticks to it; while, on the other hand, many may be wondering why Dr. Farquhar after studying the ancient Aryan scriptures, for many years, has not been able to discern the most plausible truth, regarding the origins of Christ's teaching. I say origins because it is reasonable to believe, that Christ acquired knowledge not from one, but from many, scriptures of the world. "Seek" was the command and "ye shall find," was the promise of our common Lord. Why then are the results so widely different? Logic says that if in any of the premises there be a defect, in the conclusion it will glaringly manifest itself. So, naturally, the question arises, whether any of the two combatants has failed in the requirements of the seeker after truth? If one takes up the task of writing only for a certain

kind of literature his findings, his thoughts being accustomed to run in certain fixed grooves, cannot but be different from him who tramps untrammelled in search of truth. If we recognise this fact the cause of the contrary results becomes transparent to us. It is a psychological truth that thought is creative and it produces after its kind.

Dr. Farquhar in support of his statement has cited several passages from the Old Testament to show that Christ's teaching has its roots only in them. Unfortunately to the unbiassed mind it appears to be but an infructuous effort to sustain his contention. If all the passages quoted by him from the Old Testament prophets and the sayings of Christ, and put side by side, be taken as identical in thought, of course there are one or two which appear to be so, and that accidentally, then it may be simply concluded that no religious teacher of the world has ever uttered any new teaching. Thus, following his own *dictum*, Dr. Farquhar will have to admit Christ as no revealer of any new truth of God. Dr. Farquhar, I think, will now be able to discover the sand upon which he is determined to build his structure. May I ask, if Christ borrowed his teachings from somebody, from the old Jewish prophets, why then there should be any objection in supposing that he did borrow, some of them, also from an old Aryan teacher?

That Christ did not draw the inspiration of his teachings exclusively from the Old Testament prophets, could easily be ascertained from his own utterances, without one's entering into the meshes of a controversy. Two such illustrations, I think, will suffice. "Ye have heard that it was said, an eye for an eye, and a tooth for a tooth. But I say unto you, Resist not him that is evil, but whosoever smiteth thee, on thy right cheek, turn to him the other also." And "Moses for your hardness of heart suffered you to put away your wives: but from the beginning it hath not been so. And I say unto you, whosoever shall put away his wife, except for fornication

and marry another, he committeth adultery." These two passages tend to show that Christ did not always feel disposed to hold up Moses' teachings as a standard of his teaching, but when necessary he openly discarded them. Against this view, though, may be cited a saying of Christ, "I came not to destroy, but to fulfil," yet, certainly it is right to infer that thereby he did not desire to mean that all that was in the old Jewish Law and the prophets were perfect, but that his words simply signified the acceptance by him of only what was good in them, and *vice versa* what was not so, as a Divine teacher, he openly rejected.

As an humble follower of Christ and seeker after truth, so every Christian must be, as I see no reason to disbelieve that for acquiring knowledge he had to imbibe teachings from others, like any other man. It is only through learning and experience that one becomes able to know well and perform the duties of life efficiently. If this is admitted to be the case with every man, born on the earth, why should it be thought incredible in Christ's case? Why was here the working of this universal law suspended and a new provision made for him by God? In view of the great mission he had to fulfil on the earth, it is not unnatural to suppose that he had to study not only the Jewish scriptures, but also those of other nations, famous in his time. The student of ancient history is aware that the fame of India's wonderful learning reached the western countries in prehistoric times. He also knows that on account of the fame of her material wealth, besides aspirants for learning, merchants from Egypt, Phoenicia and Palestine, through Babylon, Nineveh, Damascus and Gandhāra, as well as from Arabia and Persia, following the trade routes, used to resort to India from many centuries before Christ. The Buddhist history also tells us that Asoka the great Buddhist emperor, who reigned in the third century before Christ, sent missionaries to all parts of the then known civilised world, from Siberia to

Ceylon and from China to Greece. And so, we read, it led him to express his satisfaction, saying, that throughout India and many foreign countries wherever the teachings of the Buddha were preached the people followed them. Mahaffi says, that, two centuries before Christ, the teachings of the Buddha, similar to that of Christ, were prevalent in Syria.

According to the Talmud Rabbi Hilel, the grandfather of Gamalied, was considered to be the predecessor of Jesus in preaching the Golden Rule of conduct among the Jews. This Hilel, who was according to many an Essene, or *Asinu*, that is sitting in meditation, in ideal had much in common with the Buddhist monks and was also believed by many as one from whom Christ imbibed his principles.

In Syria and Palestine two centuries before Christ the influence of the Buddhist missionaries was greatly felt by the people producing among them the sect called the Esfenes who in manner of living and in their doctrines were different from the Jews, but greatly resembled the Buddhist *Bhikshus*. Philo, a contemporary of Christ, says that their number was about four thousand. Pliny says they dwelt near the Dead Sea, entirely unlike the Jews, living a life of celibacy, abstaining from meat and wine, without money and clothed like the Buddhist monks. According to Renan, the Essenes were like the *gurus* of Brahmanism. "At all events," he says, "we may believe that many of the external practices of John, of the Essenes, and of the Jewish spiritual teachers of the time were derived from influences then but recently received from the far East." The student of ancient Greek history recognises that there was proceeding a revolution in Greek thought at the time preceding the appearance of Christ in Palestine, and he considers that it was a result of the preaching of the Buddhist missionaries in those regions. Colebrook in acknowledging this goes so far as to say, that the Pythagorean Philosophy was pure Buddhism. Some of the passages of the Christian Gospels are so trans-Jewish in

appearance that they have been recognised by Bible scholars as replicas of the teachings of the Buddha. Mr. Edmunds has removed the doubt about it by publishing his study on the comparison of Buddhist and Christian texts. So one may legitimately believe that the teaching of Christ was indirectly influenced by that of the Buddha. The manner of Christ's teaching in parables as well as their similarity and his precepts also confirm him regarding this view.

That in ancient days many students of other countries learnt from Brahmanic *gurus* has been recorded by Manu :—

एतद्देशं प्रसूतस्य सकाशात् अयजन्मनः ।

स्वं स्वं चरित्वां शिष्येण पृथिव्यां सर्वमानवाः ॥

Sir Edwin Arnold, testifying to this, has said :—

“Young and enterprising is the West,

Old and meditative is the East.

‘Turn O Youth! with intellectual zest,

Where the sage invites thee to his feast.”

So it should not surprise any one if Mr. Andrews also thought that Christ had the roots of some of his exquisite teachings in those of the Buddha, to which I would add also those of the Brahmans. Some savants are of opinion that Christ was drawn to India to enrich his store of knowledge like other devotees of learning.

I cannot conceive, with the utmost reverence to my adorable Master, how it could have been derogatory to him to undergo the same process by which only any other man can earn experience and wisdom? It would be little glory to Christ if he were born a Divine child or an overman, and then, as a matter of course, to have gone to do and attain what he did and attained. But if being born as any other son of man he did attain Divinity by means of his own merits

then only his upliftment to the glory of the Godhead would be considered the result of a natural process, also open to other men, and he "The last for which the first was made." By believing this we are able to understand how Christianity preaches the upliftment of man.

It would not help Christianity, I think, to proclaim the *ipse dixit* that Christ was born with Divine nature or even that the two natures, Divine and human, were mystically blended in him, as was declared at Chalcedon in 451 A.D. In the light of advanced metaphysics of the present day this is considered incredible; but this belief has since been prevalent in the Church. Notwithstanding, it is reasonable to think that as in one individual there cannot exist two personalities, so in Christ there could not exist two natures. Of course in a man there can exist at a time perfect or imperfect nature, and in the imperfect nature there is the innate power to grow into perfection. So though sometimes we may be led to imagine that there are two personalities in a man, yet it is not really so. Hence, if we consider that Christ was born with human nature and that nature is, in reality, Divine, the two being one at the bottom, like islands, only appearing separated by the sea, and that he by striving or *sadhana*, attained the fulness of Divine nature and thereby entered into a state of beatific existence with God or *Nirvana*, we think it becomes possible also with every man by striving or *sadhana* to attain the State reached by him. If this beautiful message of Christianity be propagated by Christian evangelists then the acceptance of it would be irresistible to all.

In conclusion, let me observe that the method of ignoring truths, in other religions, as has been hitherto adopted by the missionaries, for propagating the religion of Christ, can never succeed in winning souls to him, for God is the God of truth, and truth is the essence and the end of this universe. It is everywhere, and in all ages the same and unchangeable,

dwelling in the soul of all things, and one who has the eyes to see and the mind to consider will discover it everywhere. Christ is everywhere, and he says, "Come and See." The adoption of the way of truth can only lead to the God of truth, and for one who aims at it, it is essential to have many a window to his soul for the entrance of light from all sides. As an instance in question, I am obliged to advert to the statements of Dr. Farquhar and others that the recognition of the Fatherhood of God is found only in Christian teaching, whereas the fact is this idea was prevalent in Palestine sometime before Christ, and was publicly preached by Hilel, and many centuries before that the same thought, "*sa nah pita*," He is our Father, was current in the *Yajur Veda* of the Brahmans, and not only so, but also there the idea of tenderness was intensified by calling Him mother, whereby also the question of sex about Him was demolished.

As to Dr. Farquhar's and others' observations regarding the attitude of the Buddha towards the existence of God all that could be fairly said is that nothing could be said about it with certainty. His is rather an honest and reverent reticence about his positive belief in a *personal* God, as compatible with his belief in the law of *Karma*. So it may be said that the attitude of the Buddha relating to this question is not unlike that of some of the philosophers and scientists of the world.

Max Muller, though generally prone to ascribe the source of any fine thought in the Aryan scripture to the Bible, has acknowledged, "If I do find in certain Buddhist works doctrines as in Christianity, so far from being frightened I feel delighted, for surely truth is not the less true because it is believed by the majority of the human race." So in preaching Christianity by adhering to truth, wherever found, let no one fear that Christ's supreme position in the eternity can ever be lowered.

G. C. GHOSH

Ourselfes

We set out below the full text of a letter addressed by the Secretary to the Government of Bengal (Ministry of Education) to the Registrar of the University, together with the report of the Accountant General mentioned therein.

161769 EDN.

GOVERNMENT OF BENGAL.

EDUCATION DEPARTMENT.

Education Branch.

FROM

S. W. GOODE, Esq., I.C.S.,

Secretary to the Government of Bengal.

TO

THE REGISTRAR,

Calcutta University.

THE HON. P. C. MITTER, C.I.E.,

Minister in charge.

Calcutta, 23rd August, 1922.

SIR,

I am desired to refer to your letter No. A-318, dated the 14th February 1922, regarding the grant of financial assistance to the University of Calcutta.

2. The Hon'ble the Vice-Chancellor and the Senate may perhaps have noticed that, when the demand for a grant was made in the Legislative Council during the last July session, there was a strong feeling that it should be rejected, but that on an assurance being given by the Minister in charge of Education that the financial position of the University would be placed before Government and that the audit officers were about to make certain suggestions with regard to their finances, a sum of Rs. 2,50,000 was ultimately voted. Since then a report has been received from the Accountant-General, Bengal, and it reveals the fact that the financial administration of the University has hitherto been anything but satisfactory.

3. It is not the intention of Government that the University should be left in a state of bankruptcy and they are as anxious as the University authorities themselves to place their finances on a sound basis. Indeed, it is not unlikely that, subject to certain contingencies, they will be prepared to ask the Legislative Council before long to vote an additional grant to achieve that object. They feel, however, that as custodians of public funds they will not be justified in handing over any grant until an assurance is received that effect will be given to the recommendations of the Accountant-General contained in the report referred to above a copy of which has no doubt been sent to you and that certain conditions, detained in the annexures to this letter, will be accepted. In this connection, I am to refer to your letter No. 868, dated the 2nd August 1922, in which an intimation has been given that a scheme for the regular preparation of the budget and the publication from time to time of statement showing the financial condition of the University is under condition, and to express a hope that it may be found possible to consider along with it the conditions which are now proposed by Government.

4. It will be observed that the conditions are to a certain extent on the same lines as recommendations made by the Accountant-General and Government trust that they will be found to be acceptable to the authorities. As soon as an intimation is received to this effect, orders for the payment of Rs. 2,50,000 will issue. This will enable the University to meet a portion of their deficit. There will, however, still remain the question of making provisions for the liquidation of the balance. To meet this situation, I am to enquire whether it will be possible for the University to divert Rupees one lakh out of the balance of the funds enumerated on the

	Rs.
1. P. G. Teaching Fund	70,654
2. Law Colleges	97,494
3. Hardinge Hostel	97,834
4. Inspection of Colleges	25,499
5. Travelling allowance	8,715
6. Ramtanu Lahiri Fund	6,348
7. Readership Fund	11,656
8. Minto Professorship Fund	7,944
9. Hardinge do. do.	1,000
10. George V do. do.	19,500
11. Carmichael do. do.	2,532
12. Reserve Fund	2,473

Total Rs. 2,80,169

margin which, according to the preliminary audit report for the year 1921-22 stood, on the 30th June, 1922, at Rs. 2,89,169 as well as whether the University are in a position to pledge any of the properties or funds at their disposal, e.g., the Fish Market Fund, the Khaira Fund or any immovable property to enable them to open a cash credit account with a Bank for monthly overdrafts from now till the month of

November, a period during which they have practically no income although they have to incur a heavy expenditure. To both these courses Government will be prepared to accord their sanction provided the details are

settled in consultation with the Accountant-General, Bengal, and provided that, in the latter case, a suitable undertaking is given that the overdrafts will be paid up as soon as the fees are realised. It appears to Government that the adoption of these measures, if feasible, will place the University in a position to tide over the difficulties until such time as their financial condition improves.

5. The Government of Bengal in the Ministry of Education trust that the Hon'ble Vice-Chancellor and the Senate will appreciate the object which has actuated them in laying down the conditions and will co-operate with them in placing the finances of the University on a sound and efficient basis.

I have the honour to be,

SIR,

Your most obedient servant,

J. N. ROY,

for Secretary to the Government of Bengal.

* * * *

No. O. A.-94—54-21, dated Calcutta, the 24th July, 1922.

From—J. C. MITRA, Esq., Accountant-General, Bengal.

To—The Secretary to the Government of Bengal, Ministry of Education, Education Department.

I HAVE the honour to report that the accounts of the Calcutta University for the year 1920-21 have been audited by the Examiner, Outside Accounts, Calcutta, under my supervision.

2. In auditing the accounts this year, special attention has been given to the financial difficulties of the University, and with a view to review the present financial position, the figures for the year 1921-22, as recorded in the accounts, have been examined generally, leaving their detailed audit to be conducted later on. The report is in two parts, Part I dealing with the financial position of the University, and Part II giving the result of the detailed audit of the accounts for 1920-21.

3. The balance of the University drawing account at the Imperial Bank on 30th June, 1922 was a debit balance of Rs. 1,171. This is the sum total of the credit and debit balances of the undermentioned accounts :—

CREDIT BALANCES.			Rs.
1.	Post-Graduate Teaching Fund	...	76,654
2.	Law College	... ..	97,494
3.	Hardinge Hostel	... ..	29,834
4.	Inspection of Colleges, etc.	... ..	25,480

			Rs.
5.	Travelling allowance	...	8,715
6.	Ramtanu Labiri Fund	...	6,348
7.	Readership Fund	...	11,056
8.	Minto Professorship Fund	...	7,944
9.	Hardinge Professorship Fund	...	1,099
10.	George V Professorship Fund	...	19,560
11.	Carmichael Professorship Fund	...	2,532
12.	Reserve Fund	...	2,473
13.	Hostel Building Fund	...	5,569
14.	Income-tax	...	1,732
15.	Provident Fund	...	2,258
16.	Depressed Class Hostel	...	823
17.	St. Xavier's Hostel	...	1,466
18.	Ripon Hostel	...	5,590
19.	Ram Mohan Ray Hostel	...	15,686
20.	Vidyasagar Hostel	...	11,051
21.	Canning Hostel	...	16,867
22.	Carmichael Hostel	...	6,921
23.	Caution Deposit	...	7,150
24.	Sir Gooroodas Memorial	...	3,339
25.	Poverty Problem	...	1,039
26.	Kassimbazar Astronomy Research	...	46
27.	Cricket League	...	575
28.	Security Deposit	...	15
29.	Indian Vernacular	...	10,235
30.	B. Barooah Trust	...	2,000
31.	William Booth Memorial	...	132
32.	Student Welfare	...	125
33.	Suspense Account—		
	M.A. Examination Fee	...	14,720
	Law ditto	...	4,085
	General ditto	...	3,467
Total			1,14,951
Total of credit balances			+ 4,04,117
DEBIT BALANCES.			
34.	Fee Fund	...	—3,63,548
35.	Student Mess Fund	...	—10,744
Total			—3,74,292
36.	S. C. Roy's Library Grant	...	—842
37.	Advance Account	...	—25,764
38.	Permanent Advance	...	—4390
Total of debit balances			—4,05,288
Net balances			—1,171

The University had on 30th June, 1922 the following outstanding demands :—

				Rs.
(1) Fee Fund—				
(a) Salary ...	...	..	2,975	
(b) Miscellaneous bills ...	...	...	40,000	
			(Approximate)	
(c) Examiners' remuneration	...	...	1,75,000	
			(Approximate)	
				<hr/>
	Total	...	2,17,975	<hr/>
(2) Post-Graduate Fund—				
(a) Salary ...	...	...	36,575	
(b) Contractors ...	...	...	2,262	
(c) Miscellaneous bills ...	...	...	1,131	
			6,000	
			(Approximate)	
				<hr/>
	Total	...	44,837	<hr/>
(3) Law Colleges—				
(a) Salary ...	...	...	10,150	
(b) Miscellaneous bills ...	...	...	2,500	
			(Approximate)	
				<hr/>
	Total	...	12,650	<hr/>
(4) Science Colleges —				
Miscellaneous bills ...	...	...	6,000	
			(Approximate)	
(5) Net contribution to Government for salaries of Post-Graduate Presidency College Professors			16,000	
				<hr/>
	Total	...	2,97,462	<hr/>

To restore the balance at credit of the different funds and to discharge all outstanding liabilities on 30th June, 1922, the University will require the total amount of Rs. 4,04,117 + 2,97,462 + 1,171 = 7,02,750. Out of the total credit balances of

Rs. 4,04,117, Rs. 1,14,951 appertain to funds which the University cannot utilise for general purposes. The balance of Rs. 2,89,169 belong to teaching and other funds, and a substantial portion of it can be set off by the University against the total deficit.

It may be noted here that the credit balance of Rs. 76,651 in favour of the post-graduate teaching fund, is the result of book adjustments whereby funds have been transferred from the fee fund to the post-graduate teaching fee fund, when there was no balance available from the fee fund. Ordinarily the fee fund should not show a debit balance, as transfers from that fund to other funds can only be permitted to the extent of the surplus available. The book adjustments that have been made in the accounts have the effect of giving an erroneous impression of the financial position of the two funds. Taking, however, the figures as shown on the accounts, the University may perhaps utilise Rs. 1,60,000 out of the credit balance of Rs. 2,89,169 of different funds, and the total liability which the University has to discharge will amount to Rs. 1,29,169 + 1,14,951 + 2,97,462 + 1,171 = 5,42,753, or in round figures 5½ lakhs.

PART I.

4. To give an idea as to how the present financial troubles have arisen the accounts for the last 10 years have been reviewed to trace the different causes which have contributed to the present difficulties. A statement has accordingly been prepared showing the actual receipts and disbursements of each year under certain fund heads which deal with the teaching and examining functions of the University. Although separate balances have been maintained of these funds in the accounts a combined account is maintained in the Imperial Bank for purposes of drawing. A temporary deficit of any particular fund during the course of the year is thus made good from the surplus balances of other funds.

5. The totals of receipts and payments of the fee fund as well as of all the funds referred to in paragraph 4, for each year, are separately reproduced below, to show the variations from year to year, and the surplus or deficits of each year.

YEARS.	PER FUND.			TOTAL OF ALL FUNDS.					
	Total receipts.	Total variations year to year.	Total disbursements exclusive of contribution to other fund.	Surplus or deficits	Total receipts.	Variations year to year.	Total disbursements.	Variations year to year.	Surplus or deficits
1911-12	473	...	389	+ 83	652	...	530	...	+ 122
1912-13	552	+ 79	422	+ 130	836	+ 181	742	+ 212	+ 94
1913-14	523	- 29	537	- 11	938	+ 102	932	+ 190	+ 6
1914-15	612	+ 89	547	+ 165	1,017	+ 109	955	+ 23	+ 92
1915-16	695	+ 83	491	+ 201	1,212	+ 165	1,089	+ 134	+ 123
1916-17	791	+ 86	569	+ 272	1,375	+ 163	1,156	+ 67	+ 219
1917-18	938	+ 157	622	+ 316	1,545	+ 230	1,571	+ 415	+ 94
1918-19	918	- 20	580	+ 338	1,562	- 102	1,600	+ 39	- 38
1919-20	1,025	+ 107	797	+ 228	1,708	+ 146	1,885	+ 225	- 177
1920-21	1,138	+ 113	617	+ 321	1,857	+ 149	2,065	+ 180	- 208
1921-22	958	- 180	652	+ 306	1,703	- 154	1,753	- 312	- 50

6. It will be seen from the statement that owing to the general prosperous conditions of the fee fund, there was a growing tendency on the part of the University to expand its activities by undertaking higher education and research work, in addition to its ordinary examining functions. Thus the Law and the Science College were established, the post-graduate studies were introduced, several large buildings were started involving a heavy capital outlay, partly financed by private donations and Government grants, and partly from its accumulated reserved fund. So long as the University kept its expenditure within its receipts, and so long as there was a reserve fund no difficulties arose. The fee fund receipts showed a progressive growth except in 1913-14 and 1918-19, the average annual increase during the ten years 1911-12 to 1920-21 being about Rs. 70,000 while increase in the normal expenditure did not much exceed Rs. 43,000.

The average annual increase of receipts of all the fund heads together was Rs. 1,20,000 against average annual growth of expenditure of Rs. 1,53,000. Thus on an average the University overspent by Rs. 33,000 a year. The overspending is chiefly noticeable since 1917-18, when the post-graduate classes were opened. In the year 1917-18 in which the post-graduate studies were taken up the surplus came down from Rs. 2,19,000 of the previous year to Rs. 94,000 only. The years 1918-19, 1919-20, and 1920-21 recorded a progressing deficit of Rs. 38,000, Rs., 1,77,000 and Rs. 2,08,000. The deficit for 1921-22, is about Rs. 3,47,000, as bills for about Rs. 2,97,000 could not be paid for want of funds.

7. *Causes which brought about the financial difficulties.*—I now examine in detail the various causes, which gradually brought about the financial difficulties.

(a) FALLING OFF IN THE FEE RECEIPTS.

One of the chief causes for the financial trouble is the drop in the receipts of the fee fund during 1921-22 by about two lakhs as compared with the receipts of 1920-21, due to circumstances on which the University had no control. The shortage comes to about three lakhs if the progressive increase of previous years is taken into account.

(b) WANT OF RESERVE FUND.

Had there been a sufficient reserve fund, the temporary falling off in the fee receipts would have been easily overcome. The University had a reserve fund of Rs. 7,10,000 before 1911-12, perhaps as early as 1907-08 which it utilised chiefly in financing construction of the Science College to meet the obligations certain Trusts coming into its hands and in supplementing the resources for the construction of the Law College, the

Hardinge Hostel, etc. It had a cash balance of Rs. 2,473 and promissory notes for Rs. 7,000 only on 30th June 1922.

There is no adequate surplus to build up a reserve fund for future emergencies.

(a) TEACHING OBLIGATIONS OF THE UNIVERSITY.

(i) *Carmichael Professorship.*

In 1911-12 a Professorship of Ancient Indian History and Culture was founded, the charge to be met from the sale proceeds of the Sanskrit Matriculation and Intermediate Courses, and the Sanskrit grammar, published by the University. Although the salary of Rs. 12,000 per annum of the Professor was met from these receipts additional expenditure had to be incurred from the University Funds to provide for lecture rooms, libraries, museums and other facilities, as well as the cost of printing the publications.

(ii) *Law College.*

The University undertook the promotion of legal education of students for degrees in Law, and established the Law College, formally affiliating it in July 1908. The receipts and expenditure of the College were combined with the fee fund up to 1913-14, and any deficit in its working were met from the surplus of the fee fund. Although the Law College has been meeting its ways lately, chiefly from the tuition fees of the students and an annual Government grant of Rs. 30,000, municipal taxes, maintenance charges of the College are borne by the fee fund.

(iii) *Science College.*

Additional liabilities have fallen on the University Funds to meet the obligations of Sir Rush Behari Ghosh and Sir Tarak Nath Palit Trusts, to construct the Science College and to maintain it with up-to-date equipments. A total contribution of Rs. 3,03,000 had to be given to the College from the fee fund during the six years ending 1921-1922 in addition to Rs. 2,28,000, being the sale proceeds of Government paper worth Rs. 3,00,000 for the construction of the building.

(iv) *Ramtanu Lahiri Fellowship Fund.*

In 1913-14 the above fund was created out of the sale proceeds of Lahiri's Select Poems, the copyright of which had been transferred to the University by the publishers of the book. A sum of Rs. 5,500 was transferred to this fund from the fee fund.

(v) Construction of University Buildings.

Besides the accumulated reserve fund the University had to spend about Rs. 2,12,000 from its fee fund towards the building programme.

(vi) Controller of Examinations and his Staff.

With a view to guard against leakage of question papers that occurred in 1917, involving an extra expenditure of about Rs. 60,000 for a second examination and to exercise an effective control over the future University examination, the post of Controller of Examinations was created during 1917-18 on a salary of Rs. 1,000 a month and he has been provided with a staff costing about Rs. 2,000 a month. There was no corresponding reduction in the cost of Registrar's establishment, which before that period managed the examination work with other duties. The cost of supervising staff and establishment including the Controller's establishment rose from Rs. 78,000 in 1917-18 to Rs. 1,26,000 in 1920-21, the increase being partly due to revision and partly to the entertainment of about 20 additional hands, while the number of candidates for whose examination separate controlling arrangement has been made rose from Rs. 30,520 to Rs. 37,186 in that period.

(vii) University Lecture Fund.

The University started its teaching work from 1911-12 with Rs. 10,293 as fees paid by University students. No regular staff of Professors was engaged till the ensuing year. Up to 1913-14 this work continued with receipts and expenditure nearly equal. In 1914-15 this fund was replaced by post-graduate teaching fund with receipts amounting to Rs. 1,52,000 and expenditure of Rs. 1,82,000, the excess falling on the fee fund. During the next two years 1915-16 and 1916-17, the receipts were Rs. 85,000 and Rs. 93,000 while the expenditure was Rs. 1,62,000 and Rs. 1,38,000 respectively. The net burden on the University during the three years was Rs. 1,52,000.

(viii) Post-Graduate Teaching Fund.

The main cause of the depletion of University funds is the opening of regular Post-Graduate Teaching Classes from 1917-18. In 1916 a special Committee was appointed by the Government of India for reviewing the facilities then existing for instruction beyond the bachelor degrees, and making suggestion whereby the available resources might be put to the best use for such teaching, without further grants for post-graduate education. The Committee framed their recommendations

within the University funds then available, and the University assured the Government of India that the financial security of the scheme would be attained if the fee funds contribute at least two lakhs of rupees a year towards the scheme. Regulations for starting post-graduate studies in arts and science were accordingly framed and approved by the Governor-General in Council, and the scheme was introduced from September, 1917. Rule 45 of the Regulations says that there shall be annually credited to the fund—

- (a) Grants from Government and private donations.
- (b) Fees from students in post-graduate classes.
- (c) One-third of fees from candidates for Matric., I.A., I.Sc., B.A. and B.Sc. Examinations.
- (d) Such other sums as the Senate may from time to time direct.

The surpluses of the fee fund for the years 1917-18 to 1921-22 amounted to Rs. 15,09,000—

	In thousands of rupees.	Contributions to post-graduate teaching fund : one-third share of fees	Additional contributions.	Total.
1917-18	... + 3,16,	1,99,	22,	2,21,
1918-19	... + 3,38,	2,11,	50,	2,67,
1919-20	... + 2,28,	2,28,	1,66,	3,94,
1920-21	... + 3,21,	2,33,	1,67,	4,00,
1921-22	... + 3,06,	2,01,	2,65,	4,69,
Total	... 15,09	1,75,	6,76,	1,751,

against which Rs. 10,75,000 was paid to the post-graduate teaching fund as one-third share of the stipulated examination fees and an additional contribution of Rs. 6,76,000 under clause (d) above.

The receipts and expenditure of post-graduate teachings in arts and science during the above five years were as follows :—

YEARS.	Opening balance.	RECEIPTS.			Expenditure.	Closing balance.
		Contribution for fee fund	Other receipts.	Total		
1917-18	...	2,21,	1,13,	3,34,	2,75,	59
1918-19	...	2,67,	1,39,	4,06,	4,64,	1
1919-20	...	3,94,	1,07,	5,01,	4,78,	24
1920-21	...	4,00,	1,24,	5,24,	5,71,	-23
1921-22	...	4,69,	1,42,	6,11,	5,11,	77*
Total	...	17,51,	6,25,	...	22,90,	...

* (Exclusive of outstanding bills for 45.)

It shows that the total expenditure of Rs. 22,99,000 could not be met from the Government grant, students fees and one-third of the examination fees, so additional contributions aggregating Rs. 6,76,000 had to be given to meet the total expenditure.

The fee fund was not in a position to meet this contribution as well as other contribution to the Science College, and the result is that it showed a progressive deficit from 1918-19 as shown below :—

YEARS.	Surpluses of fee fund.	CONTRIBUTION.			Net surplus or deficit.
		Post-graduate teaching fund	Science College.	Total.	
1917-18 ...	3,16,	2,21,	91,	3,12,	4
1918-19 ...	3,38,	2,67,	80,	3,53,	—15
1919-20 ...	2,28,	3,94,	..	3,94,	—1,66
1920-21 ...	3,21,	4,00,	35,	4,35,	—1,14
1921-22 ...	3,00,	4,69,	53,	5,22,	—2,16
Total ...	...	17,51,	3,03,	20,54,	..

It appears from the correspondence in 1919-20 between the Government of India and the University regarding increase in the income of the University, for meeting the additional expenditure on the post-graduate studies, that the proposal of the University for the increase of Matriculation and Intermediate Examinations fees was not accepted by the Government of India; they on the other hand suggested a substantial increase in the tuition fees levied on post-graduate students.

(d) WANT OF PROPER FINANCIAL CONTROL.

There is a Board of Accounts appointed by the Senate whose functions are to prepare the Budget estimate, examine and audit the University accounts, consider ways and means and the financial effect of any important measures in contemplation and make recommendations relating to the finance of the University. Had sufficient control been exercised from the very beginning the expenditure on post-graduate studies would have been kept within the income of the University. In 1916 they prepared detailed rules for the preparation of Budget estimates and scrutiny of accounts, but the rules were not fully approved of by the Syndicate, nor any effect given to such of the rules as were accepted. In November 1921 they noticed the abnormal

growth in expenditure at the time of passing the Budget estimate for 1921-22, and recommended an increase in the examination fees. Their scrutiny of accounts was not sufficient as they hardly met more than twice a year from 1917 to 1921.

(c) WANT OF AN OFFICE MANUAL.

There is no manual for the guidance of the office or for fixing the financial responsibility of the officer dealing with University funds. The different spending departments of the University pass the bills as they come, under an impression that any scrutiny or budget check would be made by the Registrar. The Secretary, Post Graduate Studies in Science, did not know whether the grants passed by the Council were ultimately sanctioned by the Senate although he continued to pass the bills of the department.

(f) DISREGARD OF BUDGET RULES.

Professors of Science in the Science College place orders in England for the apparatus or other articles required for lecture and research work, disregarding the sanctioned grants. When the bills come, they are forwarded to the Secretary of the Post-Graduate Council in Science, who pass them also without any reference to the Budget grants and forward them on to the Registrar for payment. Board of Accounts recorded a resolution at their meeting of 8th November 1918 to the effect that all orders for the purchase within the Budget grants should be sent to the Registrar or the Secretary of the Council of the Post Graduate Teaching in Science. In spite of that the expenditure on equipment and working expenses largely exceeded the Budget grant of 1920-21 as shown below :—

			Grant.	Expenditure.
			Rs.	Ra.
Physics	...	...	8,000	17,207
Chemistry	...	...	8,000	24,171
Botany...	...	...	8,000	14,678

(iv) Want of scrutiny of actuals compared with estimates.

No attempt is made to watch the progress of receipts on the regular flow of which the expenditure depends. The result is that on several occasions the accumulated balances of the different solvent funds are drawn upon to meet the current expenditure. The ledger account in its present form is quite unsuitable for the purpose.

(g) UNTIMELY PREPARATION OF THE BUDGET ESTIMATES.

In the case of all public bodies, such as Calcutta Corporation, Calcutta Port Trust, Calcutta Improvement Trust, it is the invariable standing practice to prepare a complete estimate of all classes of receipts and expenditure on different accounts and get it duly sanctioned by proper authority before the year, to which it appertain, commences. The authorities entrusted with the expenditure know fully well beforehand what grants are placed at their disposal, and regulate their expenditure accordingly. They also closely watch the receipts and advise their superiors to take early action if there is a falling off in them. The Calcutta University on the other hand allows the expenditure to go on for months against no grant sanctioned by the Senate, and does not prepare an estimate till the year sufficiently advances. Estimate for 1919-20 was passed by the Senate on 29th November 1919, 1920-21 on 4th December 1920 and 1921-22 on 4th March 1922. Thus the expenditure up to those dates was incurred without any sanctioned grant.

S.—REMEDIES.

(1) *To wipe out the present deficit.*

The first step the University should take is to wipe out the existing deficit of about 5½ lakhs, restoring thereby, the balances of several fund heads, which have been used up in meeting the excess expenditure under other fund heads, and paying off its outstanding liabilities.

(2) *To restore financial equilibrium and to keep sufficient surplus in hand.*

The figures in paragraph 5 above show that the present financial deficit has resulted from the growth of expenditure on post-graduate studies during the last three years, aggravated by the unexpected falling off in the fee receipts during the year 1921-22. In view of the drop in fee receipts it would not be safe to count upon any additional contribution from the fee fund for post-graduate studies beyond the one-third share payable under the Regulations, and the first essential step therefore should be to curtail the expenditure in the post-graduate branch to bring it within its income. I understand that the number of students in the Law Classes have also gone down considerably, and it is necessary to have the expenditure under Law College restricted within its income. Any surplus under this head can, with the approval of the Senate, be utilised for post-graduate teaching. Further, it is necessary to scrutinise the expenditure now incurred for the general administration of the University with a view to curtail it wherever possible without impairing the

efficiency, and any saving which accrues should form a reserve fund to meet sudden emergencies. It must be borne in mind that during the period from July to November each year the net average outgoing comes to about 60 thousands a month and unless the University has a working balance of at least 3 lakhs in its hands at the beginning of each University year it will not be in a position to meet its current expenditure before the Matriculation Examination fees come in.

(3) *To prepare budget estimates in time.*

The budget estimate should be prepared and submitted to the Senate early in May. In preparing the next budget estimate the entire expenditure on the Examiners' fees for the 1923 examinations should be provided for and no balance should be left for year following. The budget estimate should show the actuals for the last three years closed, the revised estimate of the year current and the proposed estimate for the year following. On the passing of the budget by the Senate, extracts should be communicated to each department with distinct instructions to keep the expenditure within the sanctioned grant. In no case should an additional expenditure be allowed without a specific reappropriation of the savings in the sanctioned grants, which must be specified at the time of application for sanction to additional expenditure.

(4) *To prepare correct balance sheet.*

Section XV of Act II of 1857 requires the accounts of the University to be maintained on "Income and Expenditure" and not on "Receipts and Disbursements" basis, so that the outstanding income or expenditure on 30th June may be booked and exhibited in the balance sheet. What is at present done is to keep several charges outstanding at the close of the year and throw them on the revenues of the following year. True financial position cannot be known unless the outstanding liabilities are ascertained and correct balance sheet drawn up. This balance sheet should exhibit all the assets including cost in books, securities, buildings, stock in libraries, laboratories and the press, and any outstanding bills, balance of funds like Provident Funds, etc., should be shown in the liabilities side.

(5) *To amalgamate several so-called funds*

The chief object of retaining separate funded accounts is to see how each fund is meeting its ways, and, in respect of funds partly or wholly maintained from Government grants, to show how the balance stands at the end of the year. The accounts of the funds are not maintained separately at the bank, so the

effect is that when a particular fund overdraws its balance, the overdraft is met from the credit balance of other solvent funds.

No clear line of demarcation can be drawn between several such funds, *viz.*:—

Minto Professorship Fund,
Hardinge Professorship Fund,
George V Professorship Fund,
Science College Fund,

which are more or less related to post-graduate teaching fund in Arts or Science.

Hardinge Hostel forms an integral part of the University Law College. The accounts of the hostel should therefore be amalgamated with the Law College accounts.

Acts and Regulations only mention of three funds, General Fee Fund, Post-Graduate Teaching Fund in Arts and Science. All legitimate charges debitable to the Law College Fund should be debited to that fund to show its proper financial working, fund which have more or less teaching and examining functions, may be amalgamated with any of them. A separate *proforma* account should, however, be maintained, specially with regard to the funds partly or wholly subsidized by Government grants.

A monthly account should be prepared with receipts and expenditure under each fund head and submitted to the Board of Accounts at the end of the month following. The progressive total of the figures will give an idea at any time how each of stands financially.

(6) *To Prepare a Manual for the Office.*

An office manual showing the duties of the different departments and fixing the responsibilities of the heads of that department should be compiled for the guidance of the office.

7. Part II dealing with the results of these detailed audit of the accounts for 1920-21 will shortly follow.

The letter was received by the Registrar on the 23rd August, 1922, and was placed before the Syndicate for consideration on the 25th August, when it was ordered to be laid before the Senate. There was no escape from this course as the Government had expressed a desire to have the opinion of the Senate on the questions raised. The Senate met on Saturday the 9th September and on the motion of Sir Nilratan Sircar the matter was referred to a Committee of nine members, namely, the Hon'ble the Vice-Chancellor, Sir Nilratan Sircar, Sir P. C. Roy, Dr. Kedarnath Das,¹ Principal G. C. Bose, Rev. Father F. X.

¹ On the resignation of Dr. Das, Dr. Bidhanchandra Roy has been appointed a member of the Committee.

Crohan, Rev. Dr. G. Howells, Mr. Kaminikumar Chanda, and Dr. J. N. Maitra. Reference to a Committee was inevitable for, as Mr. Herambachandra Maitra said, the questions raised in the Government letter were so diverse in character that they could not be decided by a large deliberative assembly without preliminary investigation by a smaller body. Meanwhile, the Government letter and the report of the Accountant-General appeared in the Press. Mr. J. R. Banerjea expressed the opinion at the meeting of the Senate that this had been engineered by the enemies of the University in their anxiety to capture the press and to bring discredit upon the University before the Senate had an opportunity to answer the imputations contained in the Government letter. Mr. Banerjea mentioned a curious incident in this connection. On the day previous to the meeting of the Senate the authorities of a particular newspaper telephoned to the Registrar for a copy of the report of the Accountant-General. The Registrar replied that the copy would be supplied after the meeting of the Senate. The very next morning, however, the paper concerned came out with the letter in full. On the day following the meeting of the Senate, the same paper came out with a leading article, which was based on the assumption that whatever had been said in the Government letter was the truth, the whole truth and nothing but the truth. The same attitude has been taken up by another newspaper, which has never been remarkable for its friendliness towards the Calcutta University. The game is too transparent to be misunderstood. Let us hope that when the Senate draws up its reply to the Government letter, these and other papers of the same class will evince similar anxiety to give equal publicity to the statement of the case on behalf of the University.

In this connection we have received a signed paper from a gentleman of considerable standing and experience, dealing with the question of the relation between the

Government and the University. We have intimated to him that it will be fair to await the report of the Committee. He has protested against this decision so energetically that we are obliged to quote the following extract from his letter :

“I wish you could make up your mind to give publicity to my views without delay. I am not dependent for my bread upon your University and consequently my opinions, supported by documentary evidence, cannot be ignored as interested or prejudiced. The letter from the Bengal Government (Ministry of Education) refers to the report of the Accountant-General and says that “it reveals that the financial management has hitherto been anything but satisfactory.” I undertake to demonstrate that the report reveals something quite different. The Accountant-General has summarised the financial history of the University during the last ten years. His report reveals that the Government of India and the Government of Bengal have grievously failed to make adequate contribution to the University for the promotion of high education. Mr. Taraknath Palit gave fifteen lakhs in land and money for the foundation of a University College of Science and Technology ; not one farthing has been given by the Government by way of capital grant in furtherance of this truly noble object. Why ? People say that bureaucrats went into hysterics when they found that Mr. Palit had imposed the condition that his money should be enjoyed only by Indians. Surely he had as much right to impose this condition as the present Government of Bengal has to annex conditions to gifts of money which really belong to the public. Dr. Rashbehary Ghose made a gift of ten lacs of rupees for the College of Science ; not one farthing has been received by way of supplement from the Government. Why ? People say bureaucrats went into a swoon when they found that Dr. Ghose was of the same mind as Mr. Palit. Dr. Ghose came forward later on with another gift of eleven lacs to enable the University to open departments of Applied

Physics and Applied Chemistry. Keepers of the public treasury still remained stony-hearted; the original sin was still there. Kumar Guruprasad Singh of Khaira followed with five and a half lacs. Even this could not counteract the malign influence of those who looked at the University with an evil eye. The men in the University toiled on in the firm belief that the nation could be belittled for self-government only through the path of the highest type of education. They were rudely awakened from their dream when they found that the non-co-operators who professed to be the apostles of true self-government were bent upon the destruction of the educational fabric erected by them. The Government failed to govern, in a most astonishing manner. The students throughout the country were swept off their feet and their mental equilibrium was completely destroyed. The University authorities repeatedly warned the Government; the warnings were not heeded to, because to admit that the non-co-operators were potent for incalculable mischief was to admit that the new machinery of Government had failed to achieve the expected result. The fiction then prevailed and still dominates the minds of many that the Ministers are sacrosancts and that to criticise their conduct is to weaken the Reforms. I am not a politician and have no views on present-day politics. But I maintain that the evidence is conclusive that the University has been very badly treated by people who had and have control over the public funds. To me it is wholly immaterial whether these persons are described as bureaucrats or labelled as representatives of the people. I maintain that any impartial jury will without hesitation bring in a verdict that they have not only not furthered the cause of high education but have actually impeded the great work. We cannot overlook that notwithstanding what the Accountant-General has said there is no shadow of any imputation that the University funds have been misapplied or misappropriated. What is the sum and

substance of the charge—that the University has spent more upon education than its precarious income justified. Assume that this is established as a fact. But ask at the same time what is the significance of the fact. The University has done its duty manfully, through good report and evil, for the sole purpose of advancement of learning, notwithstanding the apathy and hostility of those who could have, but have not, befriended the cause of high education. *There have been no instances of fictitious travelling allowances and imaginary halting charges.* Vice-Chancellor after Vice-Chancellor has worked strenuously --no remuneration, no allowances, not a Personal Assistant, not even a Confidential Stenographer. Truly we live in an extraordinary age, when work of this description, which would have been acclaimed in any part of the civilised world, is libelled in this country. The report of the Accountant-General, read between the lines and interpreted in the light of published documents, is calculated to throw a lurid light upon many a dark corner of the history of high education in Bengal during the last decade. I am grievously disappointed that you should have denied me the opportunity to establish my views by detailed reference to documents of unimpeachable veracity. I only trust that the University will survive the campaign of calumny which has now been launched on the basis of the report of the Accountant-General as interpreted by the Government of Bengal in the Ministry of Education."

It is a matter of deep gratification to us that the liberality of Sir Rashbehary Ghose has enabled the University to award two travelling fellowships one to Mr. Proboodhechandra Bagchi, M.A., University Lecturer in the Department of Ancient Indian History, and the other to Dr. Hemendra Kumar Sen, M.A., D.Sc., Sir Rashbehary Ghose Professor of Applied Chemistry. Mr. Bagchi, one of the most brilliant of our young lecturers in

the University, made a special study of Chinese and is being sent out to France with Prof. Sylvain Levi to study the dead past under distinguished savants such as Prof. Pelliot, Prof. Maspero, Prof. Przylorki, Prof. Vissières and he will further proceed East to Indo-China and Japan. Prof. Sylvain Levi who supported Mr. Bagchi's application very warmly spoke about him in the following eloquent terms:—

DEAR SIR ASUTOSH,

I beg to support very warmly the application sent by Prabodhchandra Bagchi. Owing to the benevolent protection you are ever ready to extend to young men of merit, Bagchi has been my student during seven months, at *Santiiniketan* and in Nepal, where he was staying with me. He has been reading Chinese, Tibetan, French with me. In Nepal he has been my assistant in the search and decipherment of old inscriptions and of old manuscripts, also in cataloguing the whole collection of Tibetan and Chinese books in the Darbar's Library. We have also read together *Nevari* texts with the help of a local Pandit and Tibetan with the help of a Lama. I can testify that P. C. Bagchi is one of the most promising students I have met in my long career; he can work tremendously; I have been several times afraid for his health; and he has fully realized what is personal research and critical mind. He had started himself in Nepal some religious survey of the chief cities and I could see how he was managing methodically his own work in that line. If he is sent to France where Chinese studies are in full blossom with Prof. Pelliot, Prof. H. Maspero, Prof. Przylorki, Prof. Vissières, he will later come back a perfect Chinese scholar having got a deep insight in the many fields of Chinese scholarship, history, literature, religion, philosophy, art, etc. He will get also that touch of broad "humanism" which should be required from every scholar.

P. C. Bagchi before going to France, is ready to follow me eastwards to Indo-China and Japan and I shall be delighted to have him with me, not only for the charms of his company or even the advantage of training him a little more, but because it will be for him the most convenient opportunity to visit the old monuments of Indian Civilization in Cambodia and Champa, which have failed to attract the attention of Indian Scholars in spite of their splendid interest for epigraphy, archaeology, religious history of India, also to get acquainted with the priceless collections of arts and books (chiefly Chinese) in our French School of Far East, at Hanoi, lastly to trace in Japan the distant still visible traces of old India's influence, to come in touch with the Japanese Scholars and to get acquainted with the many books, collections, magazines published in Japan and practically unknown outside, though they ought to be known by any Buddhist Scholar on account of their importance.

I feel confident that P. C. Bagchi will amply repay by his work whatever help the Calcutta University may afford to him for the present.

Yours very sincerely,
SYLVAIN LEVI,
Dr., Calcutta University.

Mr. Bagchi was one of our "subsidised scholars" engaged in the study of Chinese and Tibetan and his scholarship of Rupees Fifty a month received no mean notice at the hands of a Senator some time ago, whose omniscience has almost passed into a proverb. If a young lecturer in the Department of Post-graduate Studies is enabled to help the country in the resurrection of its past, shall we approve of the scheme of studies promulgated here or shall we listen to the foul fulminations and idle vapourings of our self-constituted Educational Experts?

We are delighted to hear that H. H. the Maharaja of Nepal has generously added one thousand rupees to the University's contribution to enable Mr. Bagchi to take full advantage of the great opportunities opened out to him. Will the Government of Bengal in the Ministry of Education, take the hint—it is never too late to do what is right.

* * * *

Dr. Hemendra K. Sen does not require any introduction to the public. As one of the most distinguished graduates of this University as well as of the University of London, Dr. Sen came to Calcutta from Rangoon at a great sacrifice and it is in the fitness of things that the Senate should permit him to study methods of instruction and research in Applied Chemistry in England and on the Continent. The pre-eminent need for India at the present moment is the development of its industries; no country in the world has succeeded in achieving this goal without having undertaken advanced study in applied science and we are confidently looking forward to the day when Dr. Sen will come back to India and continue to give a practical turn of mind to his pupils, thus promoting the cause of a much-longed-for reform.

* * * *

Rightly or wrongly we are under an impression that the University of Calcutta will do immense good to the country if it undertakes the task of editing its correspondence with the Government of Bengal with suitable comments thereon. We

reproduce here one such example, namely, the correspondence relating to the enhancement of registration fee of students.

The dates are significant and the reason given in the (provisional?) last letter addressed by the Secretary to the Government of Bengal to the Registrar, Calcutta University, dated the 20th July, 1922, is full of democratic fervour :—" It is one of the functions of the Government in the Department of Education to deal with proposals for the alteration of University Regulations, nor is it necessary (and we should add, nor is it convenient, *Ed. C.R.*) that considerations that influence the decisions should be communicated with the decisions." We have always maintained that the task of the alteration of University Regulations should never be entrusted to the Government " in the Department of Education " because the " Government of India " before the new dispensation meant its Secretary and " Government of Bengal " under the reformed regime means the Minister and his Secretary : the agency which has merely to rely more or less on personal feelings as the principal consideration influencing its decision should never be permitted to sanction, far less to veto, proposals passed by a unanimous vote of the Senate and at the same time decline to assign any reasons for the step taken. Surely we are having Government for the people and by the people. The Senate has, however, at a meeting held on the 23rd August, 1922, appointed a committee consisting of the Hon'ble the Vice-Chancellor, Sir Nil Ratan Sircar, Principal J. R. Banerjea, Principal Howells and Professor Hiralal Haldar to consider the momentous issues at stake and we reserve our comments till the submission of the report by the Committee.

* * * * *

From the Registrar, University of Calcutta, to the Secretary to the Government of Bengal, Department of Education, No. 61-138, dated Senate House, the 11th April, 1921.

I am directed by the Hon'ble the Vice-Chancellor and Syndicate to request you to move the Government to sanction under Section 25 (1) of the Indian Universities Act the following change in the Regulations which has been unanimously adopted by the Senate :—

"That the word 'five' be substituted for the word 'two' in

the first paragraph of Section 6 of Chapter XV of the University Regulations."

Section 6 as it now stands requires every student who has passed the Matriculation Examination to pay to the University a registration fee of Rs. 2 when he takes his admission into an affiliated College. It is proposed to raise the fee to Rs. 5. This will give the University an increased income; it will not likely at the same time restrict the admission of passed students into Colleges. It is well known that there is keen competition among passed students to secure admission into the Colleges and the Colleges are obliged to refuse admission in many instances from lack of accommodation. It may further be observed that the fee is payable only once during the whole career of the student, namely, when after passing the Matriculation Examination he seeks admission into a College. The small increase proposed is really insignificant when compared with the total expenditure which the student has to incur during the entire period of his College career.

From the Deputy Secretary to the Govt. of Bengal, Education Department, Education Branch, to the Registrar, University of Calcutta, No. 2113 Edn., dated Calcutta, the 22nd September, 1921.

With reference to your letter No. G-438, dated the 11th April, 1921, regarding the raising of registration fee from Rs. 2 to Rs. 5 in the case of a student who has passed the Matriculation examination and taken admission into an affiliated college, I am directed to say that the Government of Bengal (Ministry of Education) have not been able to come to a decision on the matter. Resolutions have been put down more than once on the subject for discussion in the Bengal Legislative Council, but they have not yet been discussed and until they are discussed and the sense of the Council known, Government are unable to deal with the question.

2. The delay in replying to your letter is regretted.

From the Deputy Secretary to the Government of Bengal, Education Department, Education Branch, to the Registrar, Calcutta University, No. 2625 Edn., dated Calcutta, the 19th December, 1921.

In continuation of this Department letter No. 2113, dated the 22nd September, 1921, I am directed to say that the Government of Bengal (Ministry of Education) regret that they are unable to sanction the change in the Regulations proposed in your letter No. G-438, dated the 11th April, 1921.

From the Registrar, University of Calcutta, to the Secretary to the Government of Bengal, Education Department, No. G-312, dated the Senate House, the 22nd February, 1922.

I am directed to acknowledge the receipt of your letter No. 2625 Edn., dated the 19th of December, 1921, on the subject of raising the registration fee from Rs. 2 to Rs. 5 in

the case of a student who has joined a college after passing the Matriculation Examination and to say that the letter was duly placed before the Senate, at their meeting held on the 18th instant. The Senate have desired me to request the favour of your stating, for the information of the Senate, the grounds which have led the Government of Bengal to refuse to accept their recommendation in regard to the proposed raising of the fee for registration of students.

From the Secretary to the Government of Bengal, to the Registrar, University of Calcutta, No. 1422, dated the 20th July, 1922.

I am instructed to refer to your letter No. G. 312, dated 22nd February, 1922.

It is one of the functions of Government in the Department of Education to deal with proposals for the alteration of University regulations, nor is it necessary that the considerations that influence the decision should be communicated with the decision. In the present case, however, Government is prepared to waive this consideration and to point out that the general public is interested in a peculiar degree in the University of Calcutta through which alone (with the exception of the Dacca University) young men of the educated classes must pass on their way to their future profession or calling, and the public through their representatives in the Bengal Legislative Council strongly indicated the opinion that the registration fee should not be raised, and that if it were raised the increase of revenue would be trifling in relation to the deficit that the University has to meet. This attitude of the public, Government has reason to believe, is connected with the view that the University spends too large a portion of its resources on the Post-Graduate Department, especially on the Arts side, and that the increase of fees of any kind will in the main benefit only that minority that has joined these higher classes. Government appreciates the enthusiasm with which the post-graduate departments have been developed, but cannot ignore public opinion on this point, and while reluctant to interfere with the liberty of action of an academic body, is unable to accept the principle that financial proposals made by the University should be approved as a mere matter of form. Government has to make its decisions in the public interest, and in carrying out the responsibilities placed upon it in relation to the University must take into account public opinion on the matters at issue, as represented by the Bengal Legislative Council, and in other ways.

3. I am to add that the decision already communicated will not prevent further consideration by Government of any similar proposal if it is intended to utilise the additional resources on purposes beneficial to the majority of the students who pay the registration fee.

4. I regret the delay which has, owing to various reasons, occurred in replying to your letter.

* * * *

On the results of the last B. A. and B. Sc. Examinations, Jubilee Post-Graduate Scholarships, founded in 1908, were awarded to the following students in the subjects mentioned against their names.

B.A.

Pinakiranjan Sinha	...	English	Presidency College.
Sukumar Bandyopadhyaya	...	Sanskrit	City College.
Edward C. Chippendale	...	Latin	Presidency College.
Syed Mozaffar Uddin	...	Arabic	Ditto.
Debabrata Mallik	..	Philosophy	St. Paul's College.
Sunitkumar Deb	...	History	Presidency College.
Saibalkumar Gupta	...	Economics	Ditto.
Jagatchandra Acharyya	..	Mathematics	Ditto.

B.Sc.

Jatindranath Talukdar	..	Chemistry	Presidency College.
Susilkumar Ray	...	Physiology	Ditto.
Bankimchandra Chattopadhyay	...	Experimental Psychology.	Non-Coll. Student.
Amiyaprakas Chattopadhyay	...	Anthropology	Ditto.
Harendranath Ray	...	Zoology	Ditto.
Atulranjan Mukhopadhyay	...	Physics	Presidency College.
Kantichandra Basak	...	Mathematics	Ditto.

The Premchand Roychand Studentships for the year 1921 have been awarded to the following candidates and in the subject mentioned against the name of each.

ARTS.

Indubhusan Banerjee, M.A.	...	Evolution of the Khalsa.
Prabhatchandra Chakrabarti, M.A.	...	Some aspects of the Linguistic and Grammatical speculations of the Hindus.
Satisbehanda Chatterjee, M.A.	...	Epistemology of the Ancient <i>Naga</i> System.
Subimalchandra Datta, M.A.	...	History of Mewar.

SCIENCE.

Abanibhusan Datta	...	Bessel functions and its allied subjects.
Snehamay Datta	...	The Vacuum arc spectra of Sodium and Potassium and other subjects.

There cannot be the least doubt that the Board of Examiners is meeting with increasing difficulties in the matter of awarding studentships as the years are flowing by, partly because the number of deserving students engaged in original research is increasing chiefly under the auspices of the Departments of Post-Graduate Studies and partly because, it is difficult to adjudge between different subjects taken up by different candidates.

* * * *

In the last B. A. Examination, 2,799 students appeared ; of whom 2,011 passed ; 268 obtained Honours and 52 of them were placed in the First Class in the different subjects. In the last B.Sc. Examination, of 505 students 346 passed and 80 obtained Honours of whom 19 were placed in the First Class.

* * * *

In the Final M. B. Examination the number of candidates registered for Parts I and II was 87 of whom 34 passed, 11 failed - of those who failed 2 passed in Part I but failed in Part II whilst 34 passed in Part II but failed in Part I. The number of candidates registered for Part I of the Examination was 107 of whom 51 passed and 56 failed. The number of candidates registered for Part II of the Examination was 190 of whom 152 passed. Two candidates obtained Honours, one in Anatomy, one in Pharmacology.

* * * *

In the last B.E. Examination 24 students appeared of whom only 12 passed. The above statement clearly shows the very limited scope offered by the University to students seeking a scientific or professional career. We have repeatedly urged the attention of the persons in authority in whose custody Education has been placed as a transferred subject to this burning question of the day, but we have not yet heard of any practical scheme ready either for the Legislative or for the Executive anvil and we hear nothing but threats and abuses against the University.

We make no apologies whatever in publishing *in extenso* the unanimous report of three great scientists in England recommending the conferment of the D.Sc. degree on Mr. Brajendra Nath Chakrabarty of the Science College (a P.R.S. and a Doctor of the New School).

The subject which Mr. Chakravarty took up was "the colours of tempered steel and other tarnished metal surfaces."

We have examined the Thesis and supplementary papers submitted by Mr. Chakrabarty.

We regard his thesis as containing a distinct contribution to Science. The investigations described show considerable experimental skill and also knowledge of a difficult branch of Physics. The subject of the thesis is one on which a certain amount of previous work had already been done by other workers. The present investigations have added to the knowledge previously obtained and in some important respects have corrected current views on the phenomenon.

The opinion which we have formed from the Thesis is borne out by the supplementary papers.

We therefore recommend that the degree of Doctor of Science be granted.

(Sd.) C. V. HOYS.

" L. N. G. FILON.

" A. W. PORTER.

August 2, 1922.

We merely ask where would Dr. Chakravarti have obtained the facilities for study and research but for the Science College? Yet the Government yearly contributes only Rs. 12,000 for the upkeep and maintenance of the Science College.

* * * *

Our attention has been drawn to the constitution of the Governing Body of the Sanskrit College. The Governing Body of the Sanskrit College for the year 1922-1923 has been constituted as follows :—

Mahamahopadhyay Hara Prosad Sastri	...	<i>President.</i>
Principal Asutosh Sastry	...	<i>Secretary.</i>
Mr. W. C. Wordsworth—	}	<i>Members.</i>
Mr. Khagendra Nath Mitter—		
Mr. Abinas Chandra Bose—		
Pandit Jogendranath Tarkavedantatirtha.		

It appears that the Government of Bengal in the Ministry of Education can not find any Sanskritist or any Educationist whatever, ready and willing to accept the post of the President, in Bengal proper other than Mahamahopadhyay Hara Prosad Sastri who in the exuberance of his desire to promote scientific study and research of Sanskrit language and literature and of Ancient Indian History and Culture has assumed the responsible post of a Professor in the newly started University of Dacca at the fairly ripe old age of 70. The question of a non-resident head or of an alien landlord has exercised the minds of men in all ages, but the qualms of conscience of our august authorities seem to have been soothed by the feeling that Mr. Sastri, at any rate, is the oldest living Educationist in the city of Calcutta. A second question in the same connection requires a solution. A little while ago, on a representation of some of the teaching staff of the Sanskrit College, the authorities of the University made a reference to the Government of Bengal as to the advisability or otherwise of allowing the teachers to elect their own representatives. We have nothing to say against the two gentlemen Mr. Abinas Chandra Bose and Pandit Jogendranath Tarkavandantatirtha, but we merely want to know whether they are the *elected* or the *selected* representatives of the teachers. It will be interesting in this connection to record the statement which was prepared by the Inspector of Colleges some time ago with regard to the constitution of the different Governing Bodies of Colleges affiliated to the Calcutta University.

"There are forty-five Institutions affiliated to this University. Of these, the Fenni College has not yet been started and no reply has been received from the authorities of the Indian Association for the Cultivation of Science. Excluding these two Institutions and the Sanskrit College, Calcutta, two Professors of which have raised the question of representation of the Teaching Staff on the Governing Body, there are altogether forty-three Institutions.

Of these forty-three Institutions, twelve are Government Colleges situated in Bengal and Assam, seven are Missionary Colleges, two Proprietary Institutions and the rest are non-proprietary Colleges.

Of the twelve Government Colleges, there are only five in which Members of the Staff are nominated to the Governing Body. These are (1) David Hare Training College, (2) Krishnagar College, (3) Bengal Engineering College, (4) Hughli College and (5) Cotton College, Gauhati.

It should be pointed out that, in the second College in Assam, namely, Murarichand College, Sylhet, two Teachers are elected periodically by the Staff to be Members of the Governing Body. In the third College in Assam (Earle Law College, Gauhati), there are six members of the Governing Body of whom one is elected by the Teachers and the other, namely, the Principal, is *ex-officio* Secretary to the Governing Body.

In four¹ out of the seven Missionary Colleges, teachers are nominated to the Governing Body. In Serampore College, all Professors are members of the Governing Body. In the Scottish Churches College all members of the Council are Members of the Governing Body while, in St. Paul's Cathedral Mission College, two teachers are elected to the Governing Body.

There are only two Proprietary Colleges affiliated to this University, namely, Burdwan Raj College, and Krishnachandra College, Hetampur. In both teachers are nominated to the Governing Body.

Among the non-proprietary Colleges, the system of nomination is followed in two Institutions only, namely, Bangabasi College and the Hindu Academy, Daulatpur.

To sum up, out of forty-three Colleges contemplated in the above Report, the system of nomination is followed in only thirteen Institutions.

In this connection it ought further to be pointed out that the Director of Public Instruction in his letter, No. 6847G-4C-4G-19, dated the 17th December, 1919, and addressed to the Principal, Chittagong College, distinctly stated that 'the members of the teaching staff of a Government College may elect their representative to be a Member of the Governing Body of the College.' Continuing, he said that the name of the gentlemen elected might be included in the annual nomination which the Principal is required to submit to the Office of the Director of Public Instruction for the approval of the Government."

* * * *

Our readers, we hope, will read with profit the series of lectures delivered by Dr. Stella Kramrisch as a Reader of the University of Calcutta. Dr. Stella Kramrisch was given an honorarium of rupees one thousand only. According to the regulations, her appointment required the sanction of the Government of Bengal, and our readers will no doubt read with profit the very artistic language in which the Government of Bengal in the Ministry of Education accorded sanction to the appointment of the Reader on Art.

¹ Diocesan College, Loreto House, St. Xavier's College and Wesleyan College, Bankura.

From the Secretary to the Government of Bengal, Education Department, Education Branch, to the Registrar, Calcutta University, No: 1557 Edn., dated the 31st July, 1922.

"In reply to your letter No. G. 4, dated the 7th July, 1922, I am directed to say that the Government of Bengal (Ministry of Education) have no objection to the appointment of Dr. Stella Kramrisch, Ph.D. (Vienna), as a University Reader to deliver a course of six lectures on the expressiveness of Indian Art, provided the remuneration of the lecture is paid from any trust fund and that it is not supplemented by any contribution from the general Funds of the University. I am to add that no such expenditure should be incurred in future until the University is in a better position financially and that no lecturer should start work till Government sanction has been obtained to his appointment."

* * * *

The Faculty of Law in its meeting dated the 3rd August, 1922, selected three subjects upon one of which the Tagore Professor for 1924 shall be required to deliver a course of lectures:—

- (i) The History of Hindu Law in the Vedic age and Post-Vedic time down to the Institute of Manu.
- (ii) A critical, historical and comparative survey of the System of administration of Justice in Muslim law.
- (iii) History of the law of primogeniture with special reference to India, ancient and modern.

The subjects have been notified to the four Inns of Courts, to the Registrar of all Indian Universities as also to the Universities of Oxford, Cambridge and London, and we hope suitable candidates will be forthcoming next time.

* * * *

We have great pleasure in announcing to our readers the gift which our veteran Senator and distinguished countryman Principal G. C. Bose of the Bangabasi College has made to the University. We print his letter *in extenso* and invite the attention of the vocal portion of our public men, so that they may emulate his noble example.

"86, SOUTH ROAD, ENTALLY,
CALCUTTA.
August 7th, 1922

MY DEAR SIR ASUTOSH,

I desire to place at the disposal of my University 6% Bonds for Rs. 4,000 for the purpose of creating an endowment in memory of my deceased father Janaki Prasad Bose on the following conditions :

(1) That out of the interest of the Endowment, a Scholarship of Rs. 10 per month, tenable for two years, be awarded annually to the student who passes the Intermediate Examination with the highest number of marks in Botany, provided he continues the study of the subject up to the Degree Examination.

(2) That the Scholarship be called "Janakiprasad Scholarship."

(3) That the names of the Scholars with the names of the Colleges from which they pass be published in the Calendar.

Yours sincerely,

G. C. BOSE."

* * * *

So after a lapse of eleven months the Government of Bengal in the Ministry of Education have found time to accord its sanction to an almost superfluous explanatory statement recommended by the Syndicate and passed by the Senate to be appended to Section 4, Chap. IV of the Regulations of the University! It may be within the recollection of the educated public of Bengal that Babu Charuchandra Biswas, who unfortunately could not get returned to the Senate in January last, took up an attitude which was almost without an exception considered as undesirable by the Faculty of Arts and Senate of the University. Babu Charuchandra, under Section 4, Chap. IV of the Regulations, was elected to the Syndicate by the Faculty of Arts as its representative as he was serving as a Professor in the University Law College. Owing to reasons best known to him, he tendered his resignation in the University Law College, and yet claimed to continue to represent the Faculty of Arts as a teacher on the Syndicate; indeed, rumour has it that he threatened to institute proceedings against the University if his name should be erased from the list of its Syndics. The Senate was not anxious to permit further distinction to its young member, and in order to avoid future complications passed a resolution adding an explanatory note to Section 4, Chap. IV of the Regulations of the University. The letter of the Registrar was despatched on the 27th September, 1921, and the reply of the Government came on the 8th August, 1922. In the letter itself the Secretary to the Government

has regretted delay in according sanction. We merely feel amused and quote the correspondence *in extense* for the benefit of our curious readers.

From the Registrar, Calcutta University, to the Secretary to the Government of Bengal, Department of Education, No. G-53, dated the ^{22nd}/_{23rd} September, 1921.

"Under the terms of section 25, sub-section 2(g) of the Indian Universities Act, No. VIII of 1894 as amended by Act No. VII of 1921, I have the honour to request you to be so good as to move the Government of Bengal to accord sanction to the following addition made by the Senate on the recommendation of the Syndicate to section 4, Chapter IV of the Regulations of the University:—

"*Explanation*.—A person who has been elected to a seat reserved for Heads of or Professors in Colleges affiliated to the University, shall, as soon as he ceases to be such Head or Professor, be deemed to have vacated his seat, and the electorate concerned shall proceed to fill up the vacancy by the election of a person possessing the necessary qualification."

Chapter IV of the Regulations prescribes the procedure for the election of Members of the Syndicate. Of the fifteen members of the Syndicate at least seven shall be either Heads of or Professors in Colleges affiliated to the University, and of these Syndics, at least two shall be elected by the Senate and at least five by the various Faculties in the following proportion:—

Three by the Faculty of Arts.
One by the Faculty of Science.
One by the Faculty of Medicine.

It is further provided that in any meeting for election either of the Senate or of a Faculty, such Syndics that is, Syndics who are Heads of, or Professors in, affiliated Colleges to the stated minimum number shall be elected first. Fellows qualified for election under this Regulation are not debarred from election to the remaining places on the Syndicate. The procedure thus described may be illustrated by a concrete example. The Faculty of Arts elects four members of the Syndicate from amongst Fellows on the Faculty. Three of these at least must be Heads of or Professors in affiliated Colleges. The fourth may or may not be a person possessing this qualification. Assume that there are ten candidates, of whom, eight are Heads of or Professors in affiliated Colleges and the other two do not fall within that category. An election is first held for the three places reserved for Heads of or Professors in affiliated Colleges. At this election, only the eight qualified candidates are permitted to stand. A ballot is taken and three Heads of or Professors in affiliated Colleges are elected Syndics. A second election is then held for the fourth place. Here the five remaining Heads of or Professors in affiliated Colleges and the two non-teachers are allowed to stand for election. One of these persons is elected. He may or may not be a teacher. In these circumstances the question arises whether a person who is a Head or Professor of an affiliated College and has been as such elected to one of three seats reserved for teachers should be allowed to hold such seat, if after his election he ceases

to be a teacher. The Faculty of Arts came to the conclusion that as a matter of principle, a gentleman who has lost the qualification which was the basis of his election should not continue to hold the seat; in other words, that a person who is elected as a teacher should continue to be a teacher during the whole term of his membership of the Syndicate. The principle thus enunciated by the Faculty has been approved by the Senate and the Senate has resolved that an explanatory clause should be inserted in the Regulations, so that there may be no room for controversy."

From the Secretary to the Government of Bengal, Education Department, Education Branch, to the Registrar, Calcutta University, No. 1630 Edu., dated the 8th August 1922.

"With reference to your letter No. G-53, dated the 22nd-23rd September, 1921, I am directed to say that the Government of Bengal (Ministry of Education) are pleased to sanction the addition, made by the Senate, to section 4, Chapter IV of the Regulations of the Calcutta University.

2. The delay in according sanction is much regretted."

* * * *

The Senate on an unanimous recommendation of the Faculty of Medicine has sanctioned a very important change in the regulation for the Final M.B. Examination to the following effect:—"That the following proviso be added to Section 6, Chap. XLVI of the Regulations of this University; 'provided that a candidate, who has appeared in all the major subjects and has failed in only one of them, shall be admitted at the next two subsequent examinations of the Final M.B. candidates at which he shall be re-examined in that subject only in which he has been rejected; provided that he presents himself for re-examination within twelve months or one academic year from the date of the examination in which he failed. If he fails to present himself for re-examination within 12 months or one academic year or fails to pass in that subject during that period, he shall be re-examined in all the major subjects." Dr. Ray who moved the change and Dr. Nandy who seconded the resolution were anxious to give more facilities to the student who failed in one subject only. Principal Bose thought that the change would introduce examination by compartments. This system, we understand, prevails in the

British Universities and the Hon'ble the Vice-Chancellor preferred to accept the unanimous verdict of the Faculty of Medicine on this point.

* * * *

We are much beholden to Ray Harendranath Chaudhuri for the question he put at a meeting of the Bengal Legislative Council held on the 3rd of July, 1922, in which he asked for figures showing the amount of help which the University has received during the years 1904 to 1922 from private sources as also from the custodians of the public funds. The list will be interesting reading.

1

GOVERNMENT OF INDIA GRANTS

1904-1905.				Rs.
Land and Buildings	...	...	...	1,80,000
1905-1906.				
Land and Buildings	...	...	...	50,000
1906-1907.				
Buildings	...	...	...	50,000
1907-1908.				
Buildings	...	...	...	50,000
1908-1909.				
Buildings	...	...	...	50,000
1909-1910.				
Buildings	...	...	...	30,000
1910-1911.				
Buildings	...	...	...	20,000
1912-1913.				
Hardinge Hostel Building	...	...	...	3,00,000
Books and Furniture	...	...	...	1,00,000
1914-1915.				
Unspent balance of 8 lacs sanctioned for the acquisition of the Fish Market	...	...	...	1,58,560
1916-1917.				
Fish Market (Part recovery of the cost of acquisition)	...	...	...	1,76,333
GOVERNMENT OF BENGAL GRANTS				
1910-1911.				
Law College Library	...	...	...	5,000

1911-1912.				Rs.
Law College Library	...	...	...	10,000

II

PRIVATE GIFTS FROM 1904-05 to 1921-22.

1.	Sir Taraknath Palit	...	...	14,65,800
2.	„ Rashbehary Ghose (First gift)	...	...	10,00,000
	(Second „ )	...	...	11,43,000
	(Third „ )	...	...	2,50,000
3.	Kumar Guruprasad Singh of Kharia	...	...	5,50,000
4.	Mr. Guruprasanna Ghose	...	...	2,04,000
5.	„ G. D. Birla	...	...	15,000
6.	Sir Asutosh Mookerjee Birth-day Memorial Committee	...	...	3,300
7.	Mr. G. C. Bose	...	...	1,500
8.	„ Sachiswar Banerjee	...	...	3,000
9.	P. Mukerjee Memorial Committee	...	...	400
10.	Mr. Adharchandra Mukherjee	...	...	18,000
11.	„ Brahmamohan Mallik	...	...	2,500
12.	„ Dwijesachandra Chakrabarti	...	...	500
13.	„ Keshoram Poddar	...	...	5,000
14.	Rai Abhoyacharan Mitra, Bahadur	...	...	1,000
15.	Assistants of the Calcutta University	...	...	500
16.	Mr. Onauthnauth Deb	...	...	30,000
17.	Bengal Social Science Association	...	...	3,500
18.	Mr. Preonath Mallik	...	...	2,500
19.	Dr. Chandrashekhar Kali	...	...	2,000
20.	Clint Memorial Committee	...	...	400
21.	Rai Debendranath Ray Bahadur Memorial Committee	...	...	1,500
22.	Duke Memorial Committee	...	...	4,000
23.	Coronation Executive Committee	...	...	1,000
24.	N. N. Ghosh Memorial Committee	...	...	1,000
25.	Mr. Dwarkanath Ghosh	...	...	2,000
26.	„ Lalitchandra Mitra	...	...	1,000
27.	„ Kishorimohan Ray	...	...	500
28.	„ Hemchandra Gossain	...	...	37,500
29.	Inglis Memorial Committee	...	...	1,500
30.	Kumar Satatchandra Singh of Paikpara	...	...	10,000
31.	Mr. Srikumar Banerjee	...	...	500
32.	„ Motilal Mallik	...	...	1,500
33.	Sahebzada Md. Ahmed Shah	...	...	1,000
34.	Mr. Charuchandra Chatterjee	...	...	1,500
35.	Dr. N. Chakrabarti	...	...	1,500
36.	P. C. Majumdar, Memorial Committee	...	...	1,500
37.	Manmathanath Bhattacharyya, Memorial Committee	...	...	1,500
38.	Maharaja of Darbhanga Memorial Committee	...	...	9,280
39.	Maharaja of Kasimbazar	...	...	50,000
40.	Mr. B. De	...	...	1,200
41.	Mohinimohan Mitra Memorial Committee	...	...	500
42.	Mr. Ramlal Kundu	...	...	1,000
43.	Rai Narosinha Datta, Bahadur Memorial Committee	...	...	2,500

				Rs.
44.	Mr. S. P. Ray	...	...	2,000
45.	" Preonath Dutt	...	...	13,017
46.	Rai Radhikaprassanna Mukherjee Bahadur Memorial Committee	...	...	1,400
47.	Mr. Jagatbandhu Bose	...	...	6,000
48.	Kumar Pramathanath Maliah of Searsole	...	...	5,000
49.	Mr. Sarveswar Mitra	...	...	1,500
50.	" Bangendubhusan Mukerjee	...	...	5,000
51.	" Krishnachandra Ray	...	...	1,000
52.	" Kshitindranath Banerjee	...	...	9,000
53.	" Ajayanath Mitra, and Mr. Asoknath Mitra	...	...	3,000
54.	Mrs. Angelina Duke, Miss Hannah Guha and Miss Kitty Guha	...	...	1,600
55.	Sm. Monmohini Dutt	...	...	1,000
56.	Mr. Bireschandra Das	...	...	500
57.	Sons of Mr. Thakurdas Kerr	...	...	3,000
58.	Mr. Roby Dutt	...	...	10,000
59.	" Satishchandra Mukherjee	...	...	500
60.	Mrs. Amelia Gupta	...	...	2,700
61.	Mr. Narayanchandra Sen	...	...	1,000
62.	" Suryyakanta Raichaudhuri	...	...	4,000
63.	Rai Hemchandra Sarkar, Bahadur	...	...	2,000
64.	Quinlan Memorial Committee	...	...	500
65.	Soorjee Coomar Sarbadhikari Memorial Committee	...	...	3,600
66.	Dwijendralal Ray Memorial Committee	...	...	7,500
67.	Mohanimohan Ray Memorial Committee	...	...	1,000
68.	J. N. Dutt Memorial Committee	...	...	1,000
69.	Mr. Nobokristo Kar	...	...	1,000
70.	Assam Students' Conference	...	...	1,100
71.	Rai B. N. Das, Bahadur	...	...	2,000
72.	Messrs. Ismail Ibrahim Salehjee and Hashin Ismail Salehjee	...	...	5,000
73.	Maharaja of Kasimbazar	...	...	4,000
74.	Mr. Durgacharan Mookerjee	...	...	1,500
75.	" Satishchandra Ray	...	...	12,000 -
76.	Dr. A. Suhrawardy	...	...	1,000
77.	Pedler Memorial Committee	...	...	500
78.	Mr. Harachandha Banerjee	...	...	1,000
79.	" G. C. Ghosh	...	...	1,00,000
80.	" Upendrachandra Pal	...	...	1,040
81.	" Jatindranath Biswas	...	...	4,800
82.	" Nagendranarayan Raychaudhuri	...	...	500
83.	" Kshirodbihari Chatterjee	...	...	1,000
84.	" Brajaballabh Datta	...	...	300
85.	" Binaykrishna Gooptu	...	...	3,700
86.	" Ramacharan Ganguli	...	...	3,000
87.	Adharchandra Mookerjee Memorial Committee	...	...	1,000
88.	Sm. Annapurna Debi	...	...	2,000
89.	Sir Asutosh Mookerjee	...	...	3,000
90.	Sir P. C. Ray	...	...	10,000

* * * *

Owing to the liberality of the ever-liberal Maharaja of Cassimbazar, it has been found possible to open Commercial Classes in his College at Berhampur and a new degree called the B. Com. has just been instituted. The letter of the Government of Bengal, however, is characteristic and it exhibits two chief characteristics: (1) distrust of the teaching department of the University and (2) omniscience of the Government or its constituted advisers. With regard to the first point we strongly advise the Government to read carefully the regulations which do not permit conditional sanction of regulations and with regard to the second we desire to emphasise that the suggestions are neither intelligent nor consistent with the degree to the institution of which sanction was being accorded. Suggestions by the Executive to the Universities whether in England or in India or elsewhere have always met with unfortunate results and the University of Calcutta may very well resent such suggestions.

From the Secretary to the Government of Bengal, Education Department, Education Branch, to the Registrar, Calcutta University, No. 1597 Edn., dated the 3rd August, 1922.

"I am directed to convey the sanction of the Government of Bengal (Ministry of Education), under the provisions of Section 25 (1) of the Indian Universities Act No. VIII of 1904, as amended by the Calcutta University Act No. VII of 1921, to the draft regulations for the degree of Bachelor of Commerce and the amendment in the regulations for the Intermediate Examination in Arts forwarded with your letter No. G-435, dated the 19th June, 1922, with the exception of clause 3 of the regulations for the degree of Bachelor of Commerce. In this connection I am to suggest whether it will not be advisable to make the clause clearer by adding a time definition to the phrase "a regular course of study" and by adding the phrase "in the subjects included in the course" after the words "University lectures." Government will also be glad to be informed whether in the present financial condition of the University, it is in a position to contemplate post-intermediate teaching in Commerce, however commendable such an attempt may be.

2. The Government of Bengal recognize that in the regulations for the Intermediate Examination in Arts the cultural side of education cannot be ignored but in view of the demand of general public for the introduction of vocational subjects in these courses I am to suggest for the consideration of the University whether it would not be desirable to include subjects like

précis-writing, commercial correspondence, etc., in the intermediate stages at a suitably early date."

* * * *

Our friend Mr. Fazlul Huq, the novelty of whose views has often bewildered us, has flooded the Council with an ever-increasing number of questions relating to the University. We print the questions with the answers given for the edification of the *entente cordiale*.

Question.

238 (a). Will the Hon'ble the Minister in charge of the Department of Education be pleased to state the total amount spent by the Calcutta University on hostels and students' messes during the academical years 1912 to 1921?

(b) What amount out of this total sum was spent on Muhammadan hostels and messes?

Answer to Question.

The Calcutta University manage the hostels for private colleges and students' messes in Calcutta, on behalf of the Government of Bengal. Hence the University have not spent any amounts on them.

Government of India placed in the hands of the University a sum of Rs. 10,95,000 for the construction of six hostels for private Colleges and a Students' Infirmary. Rs. 1,55,400 out of this amount was spent on land and building for a hostel (*viz.*, the Carmichael Hostel) for Muhammadan students.

The Government of Bengal contribute Rs. 13,128 annually for the management of the students' messes in Calcutta.

Question.

No. 234. Will the Hon'ble the Minister in charge of the Department of Education be pleased to state—

- (i) whether it is a fact that the Syndicate of the Calcutta University held a meeting on the Id-uz-Zuha day, *viz.*, on the 4th August last which was a gazetted holiday; and
- (ii) whether the offices of the University were open on that day either wholly or partially.

Answer to question.

(i) Yes, a meeting of the Syndicate was held on the 4th of August, 1922. Meetings of the Syndicate are often held on gazetted holidays.

(b) The offices of the University were closed on that day. Only some Assistants and menials were in attendance; they were paid a special allowance in accordance with a prescribed scale.

Question.

237 (c). Will the Hon'ble the Minister in charge of the Department of Education be pleased to state the total number of permanent posts, exclusive

of professorships, teacherhips and lecturerhips, in the Calcutta University carrying monthly salaries between.

- (i) Rs. 30 and Rs. 100;
- (ii) Rs. 100 and Rs. 200;
- (iii) Rs. 200 and Rs. 300; and
- (iv) above Rs. 300?

(b) How many of these permanent posts are held by Muhammadans?

Question.

239 (a). Will the Hon'ble the Minister in charge of the Department of Education be pleased to state the total cost of constructing the Hardinge Law College Hostel building?

(b) What is the monthly expenditure for maintaining the building?

(c) How much was contributed by the University towards the cost of the building and how much is contributed by them for its maintenance charges?

"Answer to question No. 239 (a)—Rs. 5,21,738 (including land).

(b)—Rs. 600 (approximately) including Municipal rates, insurances, repairs.

(c)—Rs. 2,21,738 towards building.

The maintenance charge is met from the fees paid by boarders."

* * * *

At a meeting of the Senate held on the 25th August, 1922, a letter of the Government of Bengal in the Ministry of Education relating to the reconstitution of the University of Calcutta was considered and on a motion of Sir Nil Ratan Sircar, the Senate appointed a Committee of twelve members consisting of—

The Hon'ble the Vice-Chancellor,
Principal Heramba Chandra Maitra,
Sir Deva Prosad Sarbadhikary.
Sir Nil Ratan Sircar,
Principal G. C. Bose,
Sir P. C. Ray,
Principal T. H. Richardson,
Principal George Howells,
Professor W. S. Urquhart
Mr. R. N. Gilchrist,
Dr. A. Suhrawardy,
Hon'ble Sir Alexander Murray,

The letter of the Government is printed below. It raises grave questions of principle and we are not prepared at this

stage to consider the proposals made; we therefore reserve our comments for a future issue.

From S. W. Goode, Esq., I.C.S., Secretary to the Government of Bengal, Education Department, *Education Branch*, to The Registrar, University of Calcutta.

Calcutta the 9th August, 1922.

SIR,

I am directed to address you in a matter connected with University reconstruction. Action along the lines laid down in the University of Calcutta Commission Report has not been possible owing to financial conditions. The Government has made representations to the Government of India in the matter, and it is now necessary to undertake certain preliminary work in case circumstances enable Government to contemplate legislation in the near future. The opinion of the University is in this letter invited regarding the constitution that should be given to the Senate in such reconstruction.

2. Reference is invited in this connection to paragraphs 22 and 24 of Chapter 27 of the Commission's Report.

3. Reference is also invited to discussion in the Council of State and the Bengal Legislative Council. In the Council of State the Hon'ble Mr. Bhurgre moved on February 23, 1921 that "this Council recommends to the Governor-General in Council to take early steps to introduce legislation in order to place the Universities in India on a more democratic basis." The Hon'ble Mr. Shafi in summing up the discussion pointed out the Provincial Legislative Councils had absolute power to deal with such matters and undertook to communicate to Local Governments the proceedings of the Council on the Resolution, which was thereupon withdrawn.

In the Bengal Legislative Council Babu Jatindramohan Basu moved on 4th July, 1921, "that this Council recommends to the Government that steps be taken to effect the following changes in the Calcutta University, namely:

(a) that at least 80 per cent. of the fellows of the University should be elected;

(b) that the registered graduates of the University should elect at least 60 per cent. of the fellows; and

(c) that the fee for enrolment on the list of registered graduates should be Rs. 2, and the annual subscription of registered graduates should be Rs. 2, and Babu Rabindranath Sarkar moved by way of amendment the recommendation that

(a) at least 80 per cent. of the fellows of the University should be elected;

(b) that all persons who have taken the degrees of doctors and masters in any faculty and those who have graduated in any faculty not less than 7 years before the date of election shall be entitled to elect 60 per cent. of the fellows;

(c) that no fee whatever be charged from any graduate who is entitled to take part in such election.

In replying the Hon'ble Mr. P. C. Mitter informed the Council that the views of the House would receive the utmost consideration when the time for legislation came, and that in framing legislation he would be prepared to accept the democratic principle underlying the motion and amendment, that Government would take early steps to modify the constitution of the University in such a way as to make it thoroughly representative of public opinion in Bengal and of various interests which the University has to serve, that he was prepared to give an effective proportion of the representation to graduates, but in framing the Bill, must safeguard the various teaching interests and the different courses of study, *e.g.*, medical, engineering, etc. The resolution was then carried in this form, *viz.*, that "this Council recommends to Government that steps be taken to effect the following changes in Calcutta University, namely:—

(a) that at least 80 per cent. of the fellows of the University should be elected;

(b) that all persons who have taken the degrees of doctors and masters in any faculty not less than seven years before the date of election shall be entitled to elect 80 per cent. of the fellows;

(c) that no fee whatsoever be charged from any graduate who is entitled to take part in such election.

The Government of Bengal (Ministry of Education) will be pleased to receive the views of the Hon'ble the Vice-Chancellor and the Senate on this matter; as well as on the line of legislation which in their opinion should be adopted for introducing an elective basis in the University with due regard to proper academic interests at an early date.

A copy of each debate referred to is sent herewith. It is requested that they may be returned when done with.

I have, etc., etc.,

J. N. RAY,

for Secretary to the Government of Bengal.

* * * *

We are glad to find that on the 16th September, 1922, the Senate of our University unanimously decided to extend the term of Dr. Dineschandra Sen, Rai Bahadur, as Ramtanu Lahiri Research Fellow, for a period of five years from the date of expiry of his present term. We congratulate ourselves that there was no repetition of the unseemly discussion which took place some years ago on a similar occasion. Competent scholars and critics have acknowledged the value of the contributions made by Dr. Sen to the elucidation of the history of Bengali language and literature. The following

extract from a report drawn up by the Hon'ble the Vice-Chancellor at the request of the Syndicate contains a brief account of his work as Ramtanu Lahiri Research Fellow during the last ten years :

I have examined the work done by Dr. Sen and I have formed the opinion that the work is highly satisfactory and is calculated to enhance the reputation of the University. It is desirable that steps should be taken to publish as early as practicable such of his lectures as have not yet been printed. It would be convenient to set out here in chronological order the titles of the series of lectures delivered by him :—

1913-14. Chaitanya and his Companions.

1914-15. Old Bengali Literature—

(a) Glimpses of Bengal history from our old literature.

(b) Songs and Ballads of the Buddhistic period.

(c) Chandidas.

(d) Desertion of Nadia by Chaitanya.

(e) Humour in old Bengali Poetry.

1915-16. The Bengali Ramayanas.

1916-17. The Folk Literature of Bengal.

1917-18. The forces that developed our early literature, with special reference to Bengali Folk Tales.

1918-19. Chaitanya and his age.

1919-20. Bengali Prose Style (1800-1852).

1920-21. Chaitanya and his age—*continued*.

1921-22. Lyrical songs and ballads of Mymensingh.

The lectures for 1914-15 and 1917-18 have not yet been published, although the manuscripts have been in the possession of the University for a long time. The lectures, so far as they have been published, have attracted wide-spread attention, specially amongst scholars beyond the limits of India, and notices from the pen of competent scholars in highly appreciative terms have appeared in standard literary organs. The work upon which Dr. Sen is now engaged is of unique importance. The lyrical songs and ballads of Mymensingh have never before been reduced to writing; for many months past, they have been taken down by a competent person appointed by the University, Babu Chandra Kumar De, who has proceeded for the purpose from village to village and town to town. A large mass of material has thus already been collected and more will be accumulated before long. It will be a very arduous task to edit, elucidate and translate the ballads, and this will occupy not less than three years of continuous work at the lowest estimate. I know of no one equally competent and accomplished for the performance of this great work. My recommendations are as follows :—

(1) That arrangements be made for the publication of the lectures yet in manuscript and also of the lectures on the Mymensingh Ballads as they are delivered.

(2) That Dr. Sen's term as Ramtanu Lahiri Research Fellow be extended for five years from the date of expiry of his present term.

It is believed that some at any rate of the authorities of the Dacca University had at one time their eyes on Dr. Sen; now that Dr. Sen has been offered an extension of term by his *alma mater*—even though the remuneration may be quite inadequate—it remains to be seen whether he can be lured away.

* * * *

We understand that Professor J. W. Garner, LL.D., of the University of Illinois, U. S. A., who has been appointed Tagore Law Professor, will be amongst us early in November. The reputation of Professor Garner as a scholar stands very high and his name is familiar to students of Political Science here as well as elsewhere. His monumental work on International Law and the World War has secured for him a distinguished position among the leading authorities on that subject. His lectures as Tagore Professor will deal with recent developments in International Law according to the following syllabus :

- Lecture I. The Present State of International Law.
- Lecture II. Development of Conventional International Law; the Hague Conventions.
- Lecture III. Development of the Conventional Law of Maritime Warfare. The Declaration of London.
- Lecture IV. Interpretation and Application of International Law in Recent Wars.
- Lecture V. The same (*continued*).
- Lecture VI. Interpretation and Application of International Law during the World War.
- Lecture VII. The same (*continued*).
- Lecture VIII. The Peace Treaties (1919) and International Law.
- Lecture IX. The Development of International Aerial Law.
- Lecture X. The Progress of International Arbitration.
- Lecture XI. Development of Other Agencies for the Peaceable Settlement of International Disputes.
- Lecture XII. Development of International Legislation and Organisation.
- Lecture XIII. The Establishment of an International Court.
- Lecture XIV. Progress of Codification.
- Lecture XV. The Reconstruction of International Law.

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We are glad to announce that some important results have recently been obtained by Dr. J. N. Mukherjee, D.Sc., Guru

Prasad Singh Professor of Physical Chemistry and his collaborators, Mr. K. C. Bhattacharyya, B.Sc., and Mr. B. C. Ray, B.Sc. The subject is of particular interest for Agricultural Chemistry in that it elucidates completely the nature of soil-acidity and the exchange of bases. It is interesting to note that the theory of the subject has already been published by Professor Mukherjee in the *Philosophical Magazine* (Series VI, Vol. 44, p. 321) and the experiments based on the theory have fully confirmed it. The results obtained connect such apparently different phenomena, as soil-acidity with the effect of electrolytes or electro-osmosis. The results will be published fully later.

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Notwithstanding the rumble of thunder which, some people hope, portends the dissolution of the Post-Graduate Department of the University, new students are daily seeking admission into the Post-Graduate classes. Up to the middle of September, 456 students had taken admission into the new Fifth Year classes in the Department of Arts. Not one of the subjects has been deserted and students have enrolled themselves for Post-Graduate study in English, Sanskrit, Pali, Arabic, Persian, Indian Vernaculars, Comparative Philology, Mental and Moral Philosophy, Experimental Psychology, History, Ancient Indian History and Culture, Commerce, Economics, Pure Mathematics and Anthropology. It must be borne in mind that the B.A. results were published late in August and the successful candidates had little time left to come from the interior of the remoter districts. One exceptionally notable feature of the situation is that lady graduates—some of them married ladies—have joined the Post-Graduate classes as regular students. Mrs. Nikhilabala Sengupta, Miss Ushalata Biswas, and Miss Nirmala Bose have joined the English Class; Mrs. Chapala Debi has joined the Philosophy Class; and Miss Santilata Basu Ray, Miss Swarnakumari Guha and Miss Santiprava Das Gupta have joined the Pure

Mathematics Class. Other ladies have expressed a wish to join the classes when the University reopens after the vacation.

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In the Department of Science there is an equally persistent demand for instruction. 119 students have already taken admission and the subjects chosen include the whole range available, Applied Mathematics, Physics, Pure Chemistry, Applied Chemistry, Botany, Physiology, Geology and Zoology. There is one lady student in Botany, Miss Renuka Majumdar. The students, like their teachers, fully appreciate that the whole fabric of the Teaching University of Calcutta may collapse any day; but they are apparently determined—all of them—to stand together till the catastrophe overtakes them. It is significant that the Post-Graduate classes contain a good many students from outside Bengal who have taken their Degrees in other Universities. Those that are not deceived by appearances appreciate fully well that though there are many Universities throughout India—and their number is likely to increase—most of them provide largely, if not exclusively, for under-graduate study; there are little or no facilities for Post-Graduate work, at any rate not on the scale provided in Calcutta.

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In this connection it is interesting to note that the two much-abused subjects, Anthropology and Indian Vernaculars, have now been recognised as subjects for the Civil Service Examination. This will serve to give them a badge of respectability, and unprejudiced critics may not be reluctant to admit the wisdom of those who for the first time in the history of University education in India attempted to provide for adequate instruction in these subjects. It is one of the signs of the times that the classes arranged by the University for the benefit of B.Sc. students in subjects like Anthropology, Zoology, Experimental Psychology are full of eager students;

critics of the University had better note that there is no provision of any description whatever in these subjects even in colleges maintained or aided by the State.

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We offer a cordial reception to Dr. Surendranath Dasgupta, M.A. (Philosophy and Sanskrit), Ph.D. (Calcutta), Ph.D. (Cantab), who has just returned to India after his brilliant research-tour in Europe. Dr. Dasgupta was awarded the Griffith Memorial Prize in 1915; this Prize Essay which has been much appreciated in Europe has been published by the University of Calcutta under the title "The Study of Patanjali" in 1920. In the same year he won his Ph.D. Degree by his thesis "*Yoga* Philosophy in relation to other Indian Systems of thought." This work and his other work "Natural Philosophy of the Ancient Hindus" are now awaiting publication with the Calcutta University. Another work of his "*Yoga* as Philosophy and Religion" will shortly be published in London by Messrs. Kegan Paul Trench Trubner and Company. His another work "A History of Indian Philosophy" in two volumes is being published by the Cambridge University Press. The first volume of this great work is just out and has been given the warmest reception, as a comprehensive attempt to write a connected History of Indian Philosophy. The literature of the subject is so vast that the task was hitherto regarded as well-nigh impossible. It is not merely a history of Indian philosophical literature, but is a connected interpretation of the vast commentary, literature and a criticism of the philosophical value of each of the systems by mutual comparison and in accordance with the standards of general philosophical judgment. The research activities of Dr. Dasgupta, carried on at Chittagong, the remotest corner of Bengal, with the very limited resources of a Moffusil College, attracted the attention of the Hon'ble Maharaja Sir Manindrachandra Nandy,

K.C.I.E., and with his natural liberality he came forward to establish a research library at Dr. Dasgupta's place at Chittagong with a monthly grant of Rs. 300. In September, 1920, he proceeded to England, not only to interpret Indian thought to the West but also to study first-hand the contemporary philosophical thoughts of Europe and America. The entire expenses of this research-tour were paid by the Maharaja who had so enthusiastically encouraged him to undertake the venture. Dr. Dasgupta stayed in Cambridge as a member of Trinity College and was attached there with Dr. J. E. McTaggart, Litt.D., Fellow of the British Academy. He took as the subject of his research the problem of examining the whole situation which has led to the dispute between the Idealists and their opponents. The name of the dissertation by which he won the Ph.D. Degree of the Cambridge University is "Contemporary Idealism and its Critics." Immediately after his arrival in England Dr. J. D. Anderson, Litt.D., died, and he was appointed in his place as the Lecturer on Bengali of the Cambridge University in October, 1920. In the course of his continental travel through Belgium, France, Germany, Austria, Czecho-Slovakia, Italy and Switzerland he visited the University Libraries, and the great art galleries, studied the university organisations and cultivated the acquaintance of the great philosophers and orientalists of Europe establishing such cordial relations with them that it will be possible for him to be in constant touch with the philosophical and Sanskritic researches of most of the European countries. We trust that it may be possible in the near future to find suitable work for him in Calcutta in his special subjects.

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Our congratulations to Mr. Sitanath Pradhan, M.Sc., who, we find, is described in the latest issue of the University Calendar as Demonstrator in Physics at the Murarichand College, Sylhet. He took his M.Sc. Degree in Physics in

1912 and has now qualified himself for the Degree of Doctor of Philosophy. He submitted an erudite thesis on: "The Chronology of Ancient India (from the later Vedic Age to the Age of the Chandragupta Maurya)." The Board of Examiners consisting of Professor D. R. Bhandarkar, M.A., Ph.D., Carmichael Professor of Ancient Indian History and Culture, Professor S Krishnaswamy Aiyangar, M.A., Ph.D., Professor of Ancient Indian History in the University of Madras, and the Hon'ble Mahamahopadhyaya Dr. Ganganath Jha, M.A., D.Litt., Director of *Saraswati Bharana*, Benares, considered the thesis submitted by Mr. Pradhan of such special excellence that they have excused him from written examination. It is no small credit for a scholar to have taken his Degree in Physical Science and then to have produced a learned thesis on an antiquarian subject, though working all the while in a laboratory in one of the remotest corners of the country. The action of the Syndicate in allowing Mr. Pradhan to be a candidate for the Ph. D. Degree, although he is not an M.A. but an M.Sc., has been fully justified by the result.

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Our readers will be gratified to learn that the ink with which this number of the *Calcutta Review* has been printed was manufactured by the Science Students' Union, an organisation of the students in the Department of Applied Chemistry in the University College of Science. We wish the young votaries all success.

Our readers will be glad to learn that the Syndicate have decided to invite Professor J. S. Mackenzie, M.A., LL.D., D.Litt., Emeritus Professor of Philosophy, University of Wales, and his talented wife, Mrs. H. Millicent Mackenzie, Professor of Education, University of Wales, to deliver short courses of lectures to our advanced students next cold weather.

The former will lecture on "Our Present Outlook in Philosophy with Historical References"; the latter will lecture on "Recent Educational Developments."

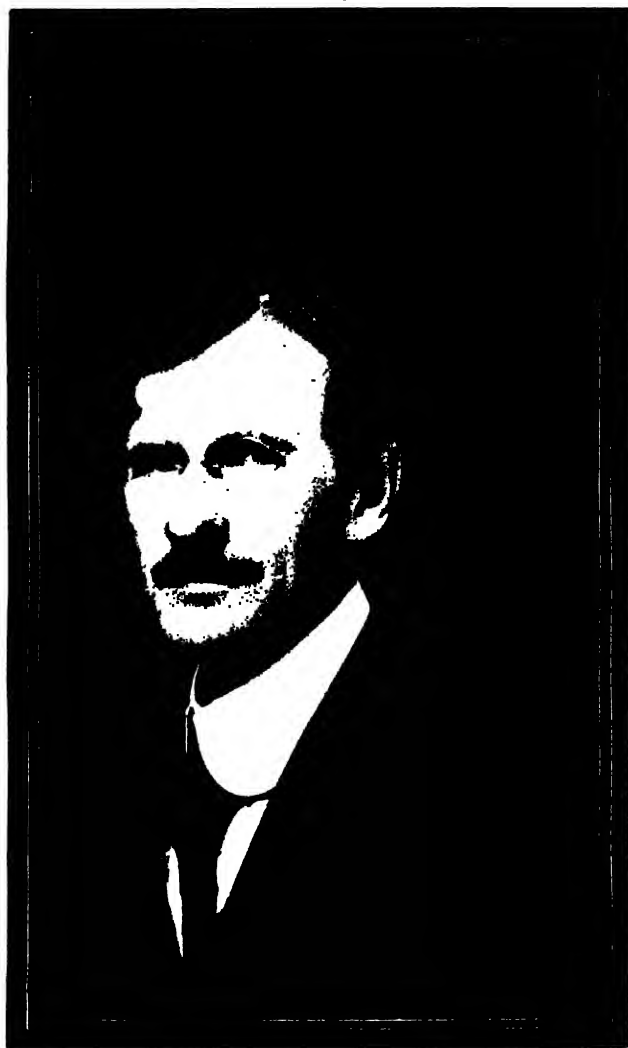
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An exchange of Professors has been sanctioned between the University of Nebraska and the Baroda College, with the result that Professor Joshi goes to America and Professor Buck comes to India. Arrangements are in progress which will enable Professor Buck, who is Dean of the Faculty of Arts and Science of the University of Nebraska, to deliver a course of lectures to the students of this University. For this exchange of Professors, we are indebted to the Carnegie Institute of International Education.

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Amongst the books which will be published forthwith by the University Press, we see mentioned a substantial volume of lectures on *Chaitanya and His Age* by Dr. Dineshchandra Sen. Another volume of no less interest is a monograph on *Socrates*, written in Bengali, by Mr. Rajanikanta Guha, M.A., Professor, City College, Calcutta, and University Lecturer in the Department of English. Mr. Guha has for several years past lectured to post-graduate students on the Dialogues of Plato describing the trial and death of Socrates. We have no doubt the volume will be a valuable contribution to Bengali literature, when we recall the success which attended the efforts of Mr. Guha to bring home to Bengali readers Megasthenes and Marcus Aurelius. It is a pity that the efforts of the University to advance the work of modest scholars like Mr. Guha are so little appreciated.

The Calcutta Review



JAMES W. GARNER, M.A., LL.D., Ph.D.

Former Professor of Law, 1922.

THE CALCUTTA REVIEW

DECEMBER, 1922

THE EXPRESSIVENESS OF INDIAN ART

IV

SPACE ¹

Small children are fond of glittering things. They want to seize the ornaments of their mother, when she comes near to them and they want to seize the moon. To them distance does not exist and whatever attracts their interest, is within their reach. They have no depth yet.

Grown up people see that their hands are near and that where the sun sets is far away. They see that big tree behind the bush and the mountain in further depth.—But do they see it ?

Physiologically the eye has no faculty of perceiving depth and the objects appear to it as coloured surfaces only, and the world is a carpet, woven in manifold colours.

When the child for the first time gets hurt against the table, it comes to know of the existence of the table and experience tells it not to go too near.

Depth, therefore, is the dimension of actual reality and we know of it by practical experience. Space, however, has depth for its chief constituent. Without the latter it shrinks down to surface.

¹ Lecture delivered at the Calcutta University on the 5th August, 1922, by Miss Stella Kramrich, Ph.D. (Vienna).

An age,—where practical experience was held to be the standard of civilisation,—found the law of perspective and how to apply it to art. From the 15th century onwards, perspective as a means of giving clear impression of the situation of objects represented in a picture, was made throughout Europe the standard of appreciation. This law has for its contents the proportion in which the size of objects decreases, while their distance from the spectator increases. Perspective in this sense is purely mathematical. Mathematics consciously separates space and time : actual reality, however, as well as art contain space and time in insoluble fusion. Perspective, therefore, has its purpose where an objective result is aimed at for further utilisation. But art has no further use but its own existence and is independent of perspective.

The East, different from Post-Renaissance Europe never investigated the scientific connection between reality, empirical knowledge and eye-sight. Still, the eastern artist fairly pays the prize for having his intuitions of space aroused through sense. That is to say, they are subject to whatever variations may be necessary for the proper business of his vision and he tries with utmost sincerity to design that vision. Herein lies the root of Eastern and Western art. By Western art as opposed in its principle to the East, the Greko-Roman tradition and the five centuries only from the beginning of the 15th century to the end of the 19th century, are considered. The Western artist proceeds towards his vision on the thorny path of empirical knowledge cleansed by science, the Eastern artist contemplates his vision only and all elements of reality are merged in it. He does not aim at depicting reality but his endeavour is to make his vision appear as real.

Reality with regard to creation and to the work of art has a meaning of its own. Every work of art being one entire organism, one world in itself, is obedient to laws of its own. These laws, however, are dictated by the inner

experience which the artist visualises in the picture. Naturally, the value we attribute to things is different from the relation which objectively exists between them. It is not only different but is changeable and it changes with every individual and with every change of his moods. "The variability of shape, size and position of things are not objects of sense, but of intuition and therefore as many various 'perspectives' are possible, as there are intuitions."

Still, pictorial art in so far as it represents either events or figures or anything otherwise connected with reality, necessarily has to make use of certain suggestions given by it. For all images of external objects are themselves spatial in character and their parts have position relatively to each other. But also they have position in the whole of space. Here the problem arises, for imagination has to find its way between significance and illusion, between the connection merely relevant for the present intention of the artist and those which occur by custom and commonsense experience. It does so with dream-like surety and firmly established formulae become the pavement of its path.

An early relief, for instance, represents the Bodhi tree. It shows in clear terms what space meant to the Indian artist and how he realised it by a clear correspondence of forms. We recognise : A railing, a tree and an umbrella. The rail surrounds the tree. That is its function in relation to the tree. Therefore it is visualised in such a manner that all the four sides are shown ; they surround the stem of the tree in the form of a quadrangle standing on one of its corners. The tree itself, the sacred symbol of the Buddha, is shown in fullest development ; an unbroken outline is drawn round the top, and the stem in entire length, and breadth is made visible too. The umbrella at last, emblem of royal dignity and duly present over the sacred spot where the Buddha attained illumination, is represented in such a manner that its inside which sheds the refreshing shadow

is shown to the spectator. Every one of the three objects is given the most expressive view. We are informed that the railing surrounds the tree and that the tree is the main object of the three, and we know that the umbrella spends shadow and on account of it the inside is shown.

To eyes trained by perspective, the confusion of views, which is obvious must be distressing. For the railing is seen from above, the tree in profile-view, that is to say, on one level with the eye while the umbrella for a change is seen from below.

To measure Indian art with the terms gained from Western Post-Renaissance tradition is obviously absurd. But the "Indianness" of this kind of perspective once recognised, we have to ask in which way are these formulæ, gained from the relation of the objects to each other in some given mental connection, to which extent are these standing formulæ subject to and made use of by creative imagination.

Space, we have seen, belongs to concrete reality and is marked by the distance of objects ; art has a reality of its own and what in an objective and disinterested nature is position, becomes transformed by art into relation. How far then can the position of single objects be made to follow that relation which links form to form ? How far can it be made to follow that relation of soul and individual which is called inner experience ?

In the representation of Maya Devi's dream from Bharhut, the flying Buddha-elephant approaches Maya's (his future mother's) left side. The maidens, her attendants, are fast asleep. Nothing is shown of the room except Maya's bed. But whatever could be shown besides it would be superfluous, for everything that makes the event clear is there and everything is shown in its entirety without the least part of the important personages being covered or intersected. Of course the maidens seem to sit under the bed against which they knock their heads. And the bed seems to suffer from

a nightmare for its legs stand cruelly crooked and its surface stands up in uproar and presents the quietly sleeping outstretched figure of the Queen. She sleeps undisturbed while the Buddha-elephant puts his clumsy foot on her and while a maiden rests her elbows on her head. The candle to the right, which is supposed to give light, tumbles down.

The whole scene, however, is designed in fullest artistic clearness. The artist sees every object which he imagines, sharply distinct. After having the whole of his picture settled in his vision, he fixes it on his paper or into the surface of the stone. The most significant parts of every object in relation to their function in the story have to be demonstrated first of all. It is important for the bed to show the whole of its surface. How otherwise could the Queen, the main figure of the action, who rests on the couch be made distinctly visible? Such considerations are justified. They satisfy the endeavour of the artist to render his story in clear terms. The relation, therefore, of the single object changes from one representation to the other. There is nothing sterile, nothing of science in this purely imaginative working of the mind. Certain objects, however, carry their spatial significance constantly with them and are independent of any pictorial connection they enter. All tables, seats or altars ever represented in Indian art show, similar to Queen Maya's bed, their entire surface, unforeshortened and unintersected, for the slab of the seat and the plate of the table are the most significant parts of these objects, whatever connections they enter. Indian art further on does not know the word "behind." It replaces it by "on top of." In this way entirety is secured for those figures which in reality stand behind others and are covered by them. The animals, therefore, which approach the sacred tree, proceed in rows on top of one another, for the artist visualises their entire crowd and each of them with equal care. In this way standing spatial formulæ

are evolved. They are like tools, ready whenever intuition wishes to make use of them. Art, however, is neither mechanic nor does it stick to principles and as long as it depicts figures and objects of reality some or the other illusion of reality will secretly enter the vision of the artist. So in Maya Devi's dream, the maid behind the bed of the Queen actually sits behind it and is intersected by the frame of the bed, instead of sitting above it, if the spatial conception were strictly logical. It is the chief aim of the artist to reproduce, not what he sees, but what he imagines. Every object which he is going to depict will be shown in its most significant aspect. How could he think of perspective when all the objects he is interested in are equally near to his mind? He, therefore, does not accommodate their size to spatial distance, that is to their relative position in actuality but he makes their size dependent upon the inner relationship between the single figures in the frame of every special story. Queen Maya and the Buddha-elephant are the leading persons in our present relief, and therefore their size excels that of the other actors, and the lying figure and the flying elephant are approached in size. In other reliefs, for instance, in the typical scenes where two elephants, standing on lotus flowers, pour water over the Goddess who sits on the lotus beneath them---the elephants have shrunk down to the size of the lotus, so small they are in comparison to the Goddess.

This conception of space differs from perspective as much as imagination differs from science. Science and perspective fix the rule gained by experience and this rule has to be applied in every special instance. Imagination, however, adapts the material supplied by impression to its own working. It crystallises into new form whenever it is saturated with an impression. It is incessantly flexible, and yet it is ruled by its own course just as life is limited by its own possibilities.

Perspective, however, and the Indian conception of space which is perspective too, in so far as only selected portions of the things themselves are represented, belong to one category. It is their function to make the connection of objects intellectually clear. The one achieves this by illusion, and the other by abstraction. Neither of them is creative in an artistic sense.

But space and art enter not only intellectual relationship. Space may be created by art as the rhyme is created by poetry and the tune by music. The space, created in art, has not only spatial significance, but it exists so far only as it is expressive.

In Indian art space in a creative sense is conspicuous by non-existence. Every building, every sculpture and every painting is entirely formed ; and form drives away space, the dead body of unexpressive reality. Forms are limited and space is extended. Forms grow, thrust away space and assemble in heaps. Such an assembly is called a temple. Not the least interval interferes with their continuity. They clasp one another growing upwards, they seize their neighbours to the right and to the left, they grow into one solid mass which rejects space and leaves it outside as something which has not undergone the fire of creation, a raw material, without direction and concentration. The spire of the Indian temple, the *Sikhara*, is a monument of creative energy that has conquered the vastness of fathomless space. No rest and no repetition will be found on any part of the temple surface. A rolling of heavy masses opens and shuts the niches reserved for the statues and under the rotation and the pressure of their weight they are moulded into shape.

The Indian art-space has a very complex origin. The intellectual part of it substitutes inner relationship for objective distance and has clear narration for its purpose. The creative spaceless and dynamic volume, however, so perfectly shaped in the *Sikhara*, is also the underlying principle of the *Gopuram*.

First it seems to be a frantic upheaval of intoxicated figures, an eruption of plastic fury; in fact, a dread of emptiness, an artistic horror vacui has taken possession of the builder. The wall of his Gopuram, for fear to remain empty, breaks out in figures, which animate the whole of it and do not leave the least space in between them. Space, the unknown, unformed vagueness of reality, is driven away by definite form, by jostling figures who wish to resist the intrusion of that shapeless unknown element. But their effort is only partly successful. For form needs space to be distinct in itself and kept apart from other forms. Space, therefore, intrudes the uproar of forms disguised as darkness which lingers in between them and is spread out as an unintended pattern.

Not only the late south-Indian temple buildings are subject to that frantic production of figure and the intrusion of unformed space. The gateways of the Sanchi *stupa* are the earliest witnesses of the gigantic fight of form against the formless. Their whole surface is covered by uncounted Jatakas and the never-tired repetition of scenes of worship. All of them are populated by dense crowds of men, objects, plants and animals, and the thicker their crowd, the less penetrable their nearness, the more space gets a chance of invading them. The whole monument, covered with a phantastic number of figures, with an exuberant thicket of forms, is soaked with the darkness of space that pervades their close texture.

Dread of emptiness is the reaction of the Indian artist against space, the vast extension of reality, and Sikhara and Gopuram are the two fortresses set up by the creative mind of India to resist space. The Sikhara increases in height by the growing energy which makes form spring off out of form, until it reaches its final limit and the spire is complete and crowned by the *amalaka*. The Gopuram, on the other hand, does not grow. Its height is a definite stage of full development and the vital energies have assembled and break out of its

epidermis in numberless forms. While the Sikhara defeats space by the volume of its growing life, the Gopuram, overripe and luxurious in fantastic fulness, exposes its surfaces rifted by superabundance of form, to the intrusion of space and seems to crumble away under its own fulness.

Every art, however, is faced with the problem how to conquer the unformed and how to conquer that enemy by the weapons he himself supplies.

Egypt took an attitude similar in its principle to the Indian, but temperamentally different. It made the statue a compact cube, it assembled all the parts of the body in one square without holes, it banished space and replaced it by motionless and consistent mass. The Egyptian cube has the permanent existence of the petrefact crystal. It secures eternal life to the Ka, the soul of the dead person, whose features are preserved in the statue. Geometrical mass, sharply confined within its limits,—such is the resistance Egypt offered to the fathomless extension of unformed space and its most characteristic monument is the pyramid; on its decisive walls, hard and impenetrable, space has to withdraw and to leave it intact.

No other civilisation shares the horror vacui, the dread of emptiness, Indian and Egyptian art knew so well. The interior of their temples, their thousand-pillar halls are alike with regard to the expulsion of space. But while Egypt conquers space by the deathlike heaviness of well-defined volumes, India expels it with the exuberant forms that belong to life; the Egyptian mass is an eternal monument, the Indian temple, sculpture and painting,—the transformation of an inexhaustible productive force. The volume of the one is geometrical, that of the other irrational. The one puts cubic sequence against extension. The other replaces extension by force. Space in Indian art is overpowered by volume and this volume is dynamic. It grows. The Egyptian weighs down. It produces exuberant form. The Egyptian excludes all further

form by rigorous side-walls. The Indian is imaginative and the Egyptian is geometrical. The Indian allows space to enter it and conquers it, the Egyptian excludes it from the beginning.

Darkness however, that is say, the actual space of reality in the disguise it chooses when it enters the intervals left by Indian form, becomes at times a well disciplined counteractor. The railings, a favourite motif with early Buddhist sculptures, soon becomes a regular pattern of light squares against dark squares and such railing-patterns are used for ornamentation wherever place is left by the sculptured figures. The rigorous discipline of darkness and light is the revenge Indian art takes for its undesired intrusion into the crowds of figures. Darkness, thus, is robbed by Indian art of its depth. Compressed into surface it forms the obedient foil and background of the sculptured figures, and again space is abolished, for darkness has almost become a colour. In an inverse way the colours as employed in Indian painting, are never used with regard to their suggestiveness of depth. The blue remoteness of western paintings and Romanticists are unknown to the Indian artist. To his mind all objects are equally near and the colours express their relations on one level of concentrated interest. As to the baby's eye which has not yet gained the experience of depth, so to these artists, the world, as they imagine it, again has become a texture, a carpet of colours; the main difference between the child's unsophisticated mind and the spontaneous creation of the artist being that the former neither is aware of the nature of the thing perceived as colour-surface, nor does it express anything through it by seeing it; the artist, on the other hand, fully awake to the meaning of all objects and their connection, reduces them into surfaces, in order to restore visual unity to that what has become the result of a complex mental process. Neither the blue tints nor the dark shades of the colours appear in various distances. On the contrary the coloured surfaces counteract by their ornamental

disposition all over the picture any suggestion of depth that might occur.

Space thus neither exists in, nor is it interpreted, nor is it conceived by Indian art. It is expelled and replaced by volume, by colour, by light and shade. Colour, light and shade, however, are of secondary importance only and volume is the unique, the triumphant, the perpetually expressive factor of Indian art, which of course differs widely from volume, the three-dimensioned mass of geometry, from volume as known to us in daily life and lastly, from any volume created by the other arts, whether they are Eastern or Western. The Indian volume represents space, pervaded and created by rhythm.

Genetically, the Indian dread of emptiness belongs to the primeval fear of man who feels himself lost in and driven by forces which do not belong to his person alone, but which he feels are surging in and round him and which threaten him by their restlessness and he is afraid to succumb. This mood of life persisted in the Indian artist, but he infused into it the intensity of his creative concentration. He conquered the superabundance of life's jungle not by cutting it down and not by ignoring some parts of it and by simplifying others. But he took it as a whole and identified himself with each single part of it. And that is how he conquered it. He gave himself away to every form that excited his interest and by doing so unknowingly every form became his possession and part of his self and the unknown forces were mastered by him. He transferred them from the object in view to the material in which he wanted to realise it and the material, stone, or wood or whatever substance became organised by those forces which belonged to life and were concentrated in the artist's mind. The artist not only fills his work with crowds of figures and thus leaves no room for space, but he replenishes every form, by such a vitality that no section of it is allowed to remain mere volume, inert and heavy mass.

Thus the volume as formed in Indian art, is the creative counterweight to space. The fusion of space and time of reality is transformed and made independent of either by a fusion of volume and rhythm. The unswerving logic of the dynamic volume is one of the vital principles of Indian art.

The gateways of the Sanchi *stupa* are the most accomplished example which Indian art offers for its dread of emptiness. Square posts and curved beams are covered on front and back to the right and to the left with square and rectangular compositions. Every relief is framed by its borders and the reliefs as well as their frames are flooded with innumerable figures, and frantically crowded forms. Even the interstices between the beams are divided into small sections and each of them is occupied by the figure of a horseman, which replenishes the whole compartment. And finally, the top of the whole structure is populated by an assembly of sculptured symbols and figures and nothing is allowed to remain vacant without having undergone the process of form, without being brought to pictorial significance. The composition of the single reliefs cannot be measured by any standard; it is an expression of creative imagination and the forms thrown into the relief settle down whenever they get located by the dynamic impetus. The single figures are swept away and the modelled forms are carried on by that impetus of creation, which disperses the unknown, empty space and replaces it by the fulness of its sway. A similar intuition as that of the Sanchi artists, only temperamentally completely different, is visualised even in the apparently most restful, most simplified and abstract works of art and even the austere figure of the sitting Buddha is entirely organised by the flow of creative energy, so that the roundness of his arms and legs is brought into an inseparable connection which is not that of the human body; but it belongs to the energy of conception that forms a new body, a volume, where every single part is pervaded and shaped by it.

Indian painting, equally spaceless as sculpture and architecture, makes the walls of the Ajanta caves covered by a fantastic tapestry of rounded limbs, growing trees, and opened houses, which do not only form a densely woven surface, from which space is excluded, but the smooth bodies of Gods and kings and ordinary men have sunk into the gentle moulds prepared by recessing rocks, by surrounding trees and the open terraces of supple houses. Painting, being fixed to the surface, has not to struggle against being dissolved by an intrusion of space. The illusion of "distance" on the other hand never troubled the Indian artist, whilst surface and mere plain metric decoration did not satisfy him. And so he discovered, guided by his dread of emptiness: by his dynamic understanding of life—the volume of painting, an expansion of the visual impression we get and which is intended by the artist in three dimensions, without the help of an illusionistic introduction of a cutting from nature, into the picture or frescoe. In this way the figures are neither mere outline schemes as it is the case with Egyptian painting, nor have they got the striking and appalling concreteness of Greek and Post-Renaissance painting. The chief point is they are not independent, they cannot be taken out of the continuity of the frescoe. In that continuous unity of Ajanta wall paintings every figure gets as much relief, as much of three-dimensioned roundness as is allowed for them by the recesses of rocks, terraces and balconies which are visualised according to the standing formula,—dealt with in the beginning of our investigation. Here the formula conveying the meaning of spatial extension, its function—not describing the appearance—becomes the tool which helps to build up the pictorial organism. Houses or rocks, distorted so as to show at least two of their sides fully, grow out of the picture in cubic reality. They prepare the extension of the round figures which repose between their angles as safely as a child in the cradle, and the rhythm of the composition can flow over their

close context without being hurt or stopped. Forwards and backwards, backwards and forwards, goes the thread of artistic texture whilst the colour flows over it in one smooth surface which is governed by the rhythm of lines.

Painting thus out of its own means, that is lines, surfaces and colours builds up—with the help of spatial formulae gained by the artistic intellect—a kind of volume organised by movement according to the method, that directed the structure of the Sikhara and which is alive in every Indian sculpture.

When in later Indian paintings the creative vigour had calmed down into a harmonised display of forms, the sober surfaces of buildings and of the floor, of the gate and of the bushes behind still follow the ancient tradition, according to which they enclose the human figure and the utensils between their protecting extension. Others, however, undoubtedly influenced by contemporary Western painting, open the close and firm structure of their visual relations to the vastness of space which stretches horizontally parallel to the figure, who has lost the intimacy of the four walls and is exposed to all winds.

Dynamic organisation of visual elements, applied to surface as well as to the three-dimensioned material, so as to build a volume, never stagnant but always significant of the creative energy is the answer by which Indian art justifies its existence against space, the unknown, formless and meaningless extension, and against the misinterpretation of those who see it with eyes unaware of what they see and conducted by the common sense of a superficial knowledge. The transformation that Indian art effects on space is undoubtedly its most complex problem. The compromise of standing formula, which conveys the meaning of spatial extension, and frequently has to struggle with an involuntary illusionism, the compromise of the formula with the creative expulsion of space, that

is to say, the fettering of all its latent directions into one dynamic volume, the intrusion of unorganised space in the disguise of darkness, into the organised volume, the utilisation of darkness-space as a pattern and its final reduction to colour, all these are expressive tokens of the creative tendency of the Indian artist, who replaces the shapeless, the indistinct, the meaningless, by volume that integrates the movement of his soul and the extension of objects.

V.

RHYTHM¹

Sometimes when listening to a song, suddenly yet unawares the words seem to disappear, and in their silence, melody surges and repienishes the vastness of space and carries you away, so far and deeply away that you come quite close to and merge in your own self. And the steps you make in that glowing vastness of the song follow its measure and they form a pattern, and you are its centre and its rule.

Sometimes when listening to yourself, you feel aloof from it and it appears as something external, and yet so well known, it has your features and therefore you cannot recognise them, and no mirror is at hand to prove the identity, for whenever you try to look into it you disappear.

Similarly by the sheer intensity of existence concentrated into the work of art you cease to exist for the time of its creation, and time does not exist either and therefore it has been said in parabolic way that to God, the creator, thousand years are like one day and one day is like thousand years, that is to say, time no longer is his measure.

Time, like space, is an abstraction but rhythm is the immediate expression of life. Nature has its monotonous rhythm, the seasons. They follow one another with equal and sure steps, although their duration and variety alter according to the manifold compositions that nature invented in different regions. Man has his rhythm too, that strange and incomprehensible power, which makes him walk and move and think in his own measure and even if he wants, he cannot alter it and his intention will make him feel uneasy and appear as artificial.

Rhythm is the inborn mode in which every individual behaves, it is communicated to the outside world by direction.

¹ Lecture delivered at the Calcutta University on the 7th August, 1922, by Miss Stella Kramrich, Ph.D. (Vienna).

Direction, however, pre-supposes movement. Thought, gesture, action and all manifestations of individual life are inevitably directed by rhythm, in fact, the strength of personality is proportional to the vigour of that immeasurable inner rule.

All expressions of human life, however, become manifest in the course of time and music, therefore, passing through time is called rhythmical. The West with its tendency towards the mechanical and objective invented for the sake of easy communication a notation which made it possible to transfer the subjective rhythm of inner experience into a standardised distribution of actual time, whilst the East let expression be expression, not to be registered but to live from man to man.

Rhythm is analysed and written down in musical notation just as thoughts are written down by letters. Yet there is another way of making rhythm—which is the inner movement of individual life—permanent. And this way is not found by invention but it is realised directly as a means of expression and is called art.

Every art as every individual has a rhythm of its own. But some people meet with great difficulties in expressing themselves; they have obstacles, dead points in their nature which they cannot and perhaps will not overcome, and so their inner rhythm, the most precious gift of life becomes obliterated by custom, tradition and prejudice. Art too, as human life, has obstacles which naturally arise with the growth of life and with the growth of art. Some individuals conquer them and they have to give way to the impetus of the rhythm, others, however, raise those very obstacles to imposing height and their inner rhythm has to take the invisible course of a subterranean rivulet.

All so-called naturalistic art raises the obstacles; by trying to do justice to their heavy burden it forgets to listen to the inner measure; Indian art, however, though never threatened by the danger of naturalism, tackled in its primitive

stage with space and its intelligible rendering, but it could afford to spend some energy on it for the vitality of its rhythm enforced itself even to the most extravagant experiments.

Rhythm in itself has that kind of monotony which makes the individual weary with his existence. It is inevitable and drags the soul striving for expression permanently throughout one and the same channel. Whilst the danger for him who yields to the obstacles is to lose himself completely, that of him who carries out what his inner voice dictates is to repeat himself. The one is the Western, the other the Eastern peril that menaces and enriches art and that helps to create tradition.

Every individual has his own rhythm and yet there is a likeness of rhythms amongst every cultural unit. The inhabitants of a town, for instance, or of a country on the one hand, and the people who belong to one age of civilisation on the other hand, have a rhythm of their own. Psychological time is infinitely variegated, and no standard time ever will be found. The Indian rhythm, that organises every work of art, takes its undisturbed course throughout the centuries keeping its individuality intact throughout the variations it had to undergo in the north and in the south—and from the third century before Christ to our present age. The rhythm of Indian art is the most pliable, and exhaustive, the simplest and most harmonious. It has scope and room for all directions, because its movement is such that it carries all of them within its sway and yet it is one ceaseless flow directed by its own fulness.

The frieze of reliefs that cover the coping stone of the railing from the *Bharhut stupa* represent *Jatakas* and each *Jataka* (with all the figures that act in it and with all the forms that are displayed) is depicted in its most significant events, and is laid into the lap of a lotus-stalk which rises and falls in slow and regular cadences. This lotus-stalk unswerving and undisturbed, patiently carries the Buddha throughout his

former incarnations and rocks each of them with equal tenderness between its undulations. And ultimately the single scenes seem to disappear and forget to tell us how wonderfully wise the Buddha behaved in each of them, for they speak with a mightier voice, which is no longer their own, but it belongs to the rhythm, running through each of them, bending their borders, compressing their event into the dense intensity of one stage of rhythm which is swept away in the next moment and stored in the wealth of the heavy fruits. Thus tension and relaxation go on continuously, calmly connected by the broad wave of the lotus-stalk which never alters course or celerity and makes the figures bend according to its sway. It is the most imaginative form Indian art invented and preserved as a standard feature.

The lotus-stalk was predestined to take the prominent place in Indian art as the lotus flower keeps the first place amongst all Indian symbols. The accidental happening of one *Jataka* or the other becomes merged in the permanent flow and it is the undulating rhythm which visualises the rhythm of life that is born again and again while the sculptured scenes enliven it with the variety of individual existence. No strength is apparent, no effort is made but the wave rises and falls, according to the law it carries in itself. Representation and ornamentation are one and the pattern is significant of life. The representation is subordinated to the pattern and finds its due place in it just as the individual is subordinate to the cosmos and is made to fill its proper place. Lotus-creepers cling along the *Bharhut Jatakas* and determine their sequence, they climb almost every temple; they are resplendent with colour and help to cover the walls of the Ajanta caves; they wind throughout the centuries of Indian art. The rhythm of the wave, embodied in the lotus stalk which took the scenes of the *Jatakas* on its broad back, does away with that burden and unfolds at times the whole wealth of its melody. It blossoms forth as bud

and flower, it rests in ease and serenity on the darkness of fresh leaves, and so jubilating is the overflow of its life that the waterbirds are carried by it as if they actually were waves of the river. Here the rhythm of the wave, free from all representation of action, indulges merely in its own action, which is a generous display of all its beauty, and of all the forces that throng and pulsate through it. Such is the life Indian art bestows on the lotus! Its roots are hidden in the human heart and it floats on the sea of emotion—calm, luxurious and benign—offering the full glory of its colour and the wealth of all it has to give. But sometimes the undulating rhythm, intimately connected with and infused to the lotus stalk, cannot contain the wealth of its life; intoxicated by its sway it produces a thicket of rhythms that inter-penetrate one another and yet they surrender to the guidance of the undulating stem.

This rhythm has no reason, it cannot be derived from the form of the lotus stalk for this—as it is suitable for a water-plant—grows in a straight line that does not know of curves; it does not result from an artistic aim of surface decoration either. It is neither taken from nature nor is it chosen by the artist. But it is due to an irresistible inner command, which compels the artist to express himself in this way and none else,—for it is his inborn mother tongue, the deepest and, therefore, the simplest expression of his entire nature. It is the life-movement of Indian art.

The lotus-stalk became its favourite object, there it unfolds all its charms without the least constraint making flowers bloom wherever it likes and transforming the Indian sacred plant into the expression of India's artistic genius. But even when the representations are more complex and when the manifoldness of forms increases, the undulating movement never becomes subdued, for it is the breath of Indian art and, howsoever pathetic or agitated or merely talkative the representation may be, it never stops its movement and

continues its course without being much disturbed. This rhythm is independent of and superior to composition and subject matter. It is the underlying principle of Indian creative form and embraces all of its problems and all of its aspects.

An assembly of men in prayer represented at *Bharhut* is arranged in two rows according to the spatial formula which replaces the one behind the other by "one on top of the other," avoiding in this way all foreshortenings and giving to both the rows equal size and equal completeness. The figures are almost motionless and one looks like the other. Each of them is praying and perhaps all of them are but one. Their feet are closely fixed on the ground for fear of becoming isolated and they stand so close to each other that they form a wall. Over this tranquil contest undulations bend each single figure into a movement which knows of no gesture, but which rests in an unconscious happiness and they share it with the trees on either side and in their midst that accompany their meeting with care and understanding. Apart from the features there is no difference between the treatment of men and that of the tree. They are different garments that clad one and the same life. There is no more of personal will in this relief as was shown in the lotus-panel for all transitory emotions are cleared away by a grand tranquillity of existence. These representations are expressive of nothing but themselves, for life is the ground in which all human emotion is rooted and it is this fertile soil itself which merges into painting and sculpture in an undulating movement. So close to the life of earth is the rhythm of Indian art that you recognise it in the movement of the pond when some light breeze caresses it, and in the flowing river, and in the calm sea and in the field where the wind blesses and bends the heavy ears of corn. So low and calm, so sure and intimate is the Indian rhythm. It is the overture and the leading motive of Indian art, just as the early Buddhist masterworks,—the earliest tokens of Indian

art that have come to our days—express this essential movement in unbroken grandeur. In a later age *Borobudur* preserved the unirritated life of the undulating rhythm, the expression of existence as felt by the Indian mind.

Rhythm, as an expression of itself, takes the course of the undulating line, but even where the artist wishes to express sorrow or joy, youth or festivity, that special emotion too is carried on by the underlying mood of life, by its undulating rhythm. When in a representation of Buddha's *Parinirvana* humanity pours out its sorrow, squatting near the majestic feet of the Tathagata, sorrow itself is their comfort and support for, though suppressed, it cannot but sing the melody of life eternal, the hymn of the undulating rhythm that unites their mourning and their existence, flowing through their tenderness, as the homage life has to offer to the superhuman, to death. The emotion, the life, the continuity of existence is assembled as one animated sweep of rhythms, prostrated at the feet of the rhythm—less of the life—less of the transfigured, of the Buddha; close to the ground and in dumb surrender it glides through their limbs in undulating course.

It is this rhythm which gives measure to all emotions, it does not allow them to overstrengthen their possibilities, it prevents them from exertion as well as from vagueness, it eliminates the merely subjective and accidental and leads them back to that source of life which never forsakes its water, howsoever great storms may agitate its surface.

It never fades; it bestows on all the works of art the freshness of eternal youth. A group from Ajanta, for instance, unfolds the beauty of youthful bodies with all the charm and elasticity, of growing life, and of its expression, the wavy curve. The bend of the Indian movement is expressive of life in its ceaseless reiteration and as such it carries all emotions and it is the form, life, as growth evolves. We only have to keep in mind that, for instance, the spine of the human body is constructed in that slightly undulating curve

which animates almost every figure we meet in Indian art. This attitude has no purpose, it does not serve for any action, although it is present in every single one. It simply means presence, existence, unrestrained, because unintended, self-realisation. It has no other aim but itself and does not lead anywhere for it is at peace within itself.

The undulating rhythm is the *a priori* faculty of Indian art. Being the underlying principle of all form it carries on its flowing wave, gesture and emotion, events and spatial relations. And so every movement represented and every event illustrated are animated by and adapted to it. Nothing, therefore, happens unforeseen but willingly surrenders to a pre-established harmony.

When *Siva Nataraja* dances his cosmic dance, not only his body whirls round impelled by an unrestrained and ceaseless energy, but his limbs, his hands and his arms are no longer parts of his body, they are parts of the dance. Two arms of the God, keep in the firmness of their hands and in the decisive bend of their *mudras* no symbol and no attribute but space itself, pierced by movement, which is so strong and coherent that it glides from arm to arm. These are no longer the hands of a dancing figure, but a permanent visualisation of dance itself. In a torso representing, the same attitude of Siva, the one arm thrown over the body and the bend of the head whose face is mutilated are sufficient to impress us with the vigour of a superhuman all-round dance. This movement in its impassioned strength contains Siva's existence transferred into the realm of pure rhythm and although the relief is broken and the expression of the face to be surmised only and not to be seen, the rhythm is revealed in all its purity. It determines not only the plan of the work of art and the disposition of the single parts but it is carried out in every detail of the figure, that is to say, no details exist for, whether, they be fingers or ornaments, they are nothing but rhythmic vibrations radiating from a centre of superhuman, that is to

say, from a centre of completely concentrated energy. In Siva's dance there is no now and then, but one miraculous moment, which is visualised in the rhythmic correspondence of all parts of the sculpture. Siva's dance, the timeless and everlasting cosmic event, found such perfect expression in Indian Art on account of the rhythm which inspired the artist in every one of his works, and he had nothing else to do but to condense and concentrate the force which moved him, his own inner rhythm—into his special subject—the rhythmic conception of the universe—in order to visualise it without fail.

Gesture to the Indian artist does not mean a movement for some purpose or for the sake of graceful appearance. To him it represents manifestation of life, which in itself is rhythmic, as long as it is animated by breath, as long as it is life. This life subsists whether the body is at rest or in action; and action, performed by gesture, gives variety and different degrees to the movement of life, making it appear sometimes accelerated and as if hesitating at other times. Every movement, therefore, represented in Indian art is free from abruptness, and consistent in itself. It performs actions as an expression of its own existence, which might be merely vegetating or sublimated into psychical experience.—The figure of Sundara Murti Swami, represents this saint hearing his vocation in a trance of rhythm which oscillates throughout his entire being and which makes his body yield to the sound of the voice it receives with his whole surface and his arms open like beating wings and his hands hold his surprise, his longing and devotion directly into that sphere for which his eyes are so hungry. Such is the space which is contained in and directed by rhythm. It is not extension of atmosphere or of volume, but it is counteractor of the intensely concentrated rhythm. It is not tangible, but merely dynamic. Siva's hands, for instance, keep vast space in perfect equilibrium. The upper rules over the space in front and keeps

it away from the figure, the lower hand reaches into the space underneath and behind and prepares it for the movement which the figure is going to take. In the relief, however, though it is split and broken, still space extends to the right of the figure, and its vastness is as great as the vigour of Siva's movement.

Sundara Murti Swami enters the infinite space, which is God, led by Bhakti which places his limbs in due proportion. The rhythm of emotion—the movement of soul—creates that strange kind of space, suggested in Indian art. It is not contained in the form nor in the design but somewhere outside it and yet dependent upon it. It has nothing to do with visual space. Its extension does not belong to reality but to that space of the mind, that space of soul which locates in it—not objects but inner experience. It is the same space, melodies carry with them—the space in which we cannot move but where the soul is at rest. It may be compared to the surface of the water, which if you throw a pebble, will form long after the pebble has disappeared circles around the spot where it fell down, and these circles grow bigger until they lose themselves on the calm, vast surface of the water. Like these growing circles provoked into existence by the fall of the pebble, is the space, of Indian works of art which is brought into existence by the movement of forms, by the rhythm of inner experience which resounds in the vastness of soul.

The transformation from the material or imagined world into the concreteness of the work of art is thus effected by rhythm, which enlivens and organises every form and expresses the life of it. But not only with regard to the representation of the single figures and their movement is the undulating rhythm the productive means. It is the main principle of composition, skeleton and basis of all forms.

The early Indian artists were not yet restrained by fixed rules of composition; but they evolved them simply by giving

way to what they felt to be the necessary, the inevitable connection of form. Guided by their instincts, they selected the circle as a favourite form and conclusion of their compositions.

Such round medallions, characteristic embellishments of early Buddhist *stupa*-railings later on get forgotten and do not occur but in subordinate function, except in the one immortal symbol and geometrical pattern, into which the full blown flower of the lotus is transformed. The circle, ultimate possibility of the undulating rhythm, is too rigorous a solution, too intense a visualisation to endure the everchanging fluctuations of rhythm as they are peculiar to Indian art in its evolution. Still it persists, being one possibility of the round line, dogmatised as geometrical lotus symbol. The lotus, therefore, afford two solutions to Indian art. Its stalk became suggestive of life eternal, everlasting because ever-changing, permeated by the wavy rhythm while the full-blown lotus flower, in the shape of a perfect circle became the symbol of perfection, the attribute of superhuman existence.

Pure rhythm expressive of itself,—such was the device of the lotus. The same principle of rhythm became the sorrowful tune, sung by the limbs of those who attended Buddha's *Parinirvana*, chiselled into one of the rocks at Ajanta and then again it visualised the frantic, yet effortless, energy of Siva's dance and radiated forth as sublime perfume from Sundara Murti Swami's vision and emotion.

In one of the Jain rock-cut sculptures from Khandagiri a group of girls leaning round a well-fed lady in their midst unfold their youthful movements and her heavy body like a field of flowers and when the wind passes them the single flowers come quite close to one another and their movement is the same and their forms are so much alike. Just so in this relief all modelling seems to soar in one atmosphere of broad repose. The rhythm here grows along the group and takes every form offered by the figures with gratitude. In this way it becomes more substantial, it almost

increases from the two-dimensioned sway into a plastic movement, surging and sinking and clinging along the figures as the invisible tendril of their mood.

Rhythm, as we know it in music, takes its course in time, taking its course it naturally describes some line or the other. Rhythm, therefore, in the pictorial arts, generally, belongs to the line. Indian art, however, deeper related to music than any other art of the world, infuses with rhythm not only the line, but also the modelling of its volume. In the Khandagiri relief, for instance, there is as much of undulation in the lines as there is in the modelling. So essentially vital is this rhythm, the undulating movement in Indian art, that it utilises all subjects supplied, all forms created and all means employed. Stories are made to take their course according to its flow, human beings, animals and plants are infused with its charm, line and volume, light and shade are merged in its flow.

In the representation of the marriage of Siva and Parvati, for instance, the single figures of course are obedient to its caressing undulations and let it bend and smoothen their movements, their form and their structure. But in all this tranquil harmony movement is not exhausted: it transgresses the figures, that of Siva as well as of Parvati and of their attendants and becomes itself the chief actor. Rhythm pervades the plastic mass and limits it as line, and finally it transcends its own limit and reaches over the formless ground from figure to figure as silent though dominating power, scent of its own intensity, that makes the light as it plays over the sculpture to its understanding companion and they share their secrecy when they meet under the veil of soft shadows. Howsoever significant the moment of this representation be, rhythm leads it away from the momentary into the region of timeless existence. It locates it in the space of soul where it enjoys its own existence.

The waves of the undulating rhythm is the *a priori* principle of Indian art, its chief actor and its eternal melody. It

is a preventive against the imitation of things seen, for wherever there are contents of its own, how could imitation be possible? It restrains subjectivity and the personal element of emotion for rhythm is the flavour of emotion, that which remains fresh in memory, when the particular object which excited the emotion has become forgotten. Rhythm is the soul and organizer of every Indian work of art. It distorts the objects seen in nature, for every organism in nature has a life and, therefore, a rhythm of its own and how could a part of the one world become transferred into the other? The object has to undergo transformation in order to become part of the art-organism. In India it is transformed according to the undulating movement.

Movements, as for instance all those unconscious reactions which accompany the perception of something unforeseen, or sorrow or joy or peace, are expressive. A frightened movement, for instance, always is abrupt, all directions are made to totter and break into pieces. The sorrowful movement, on the other hand, droops down, it is the line of depression, of death, that is to say, of gravity, of matter. Bent with sorrow is the human expression that corresponds to the drooping flower of the withering plant, to the growth of the weeping willow. Joyful movement rises up, children jump of joy; it is the movement towards light, towards life, the same that makes all plants turn towards the sun. These, of course, are only some elements of movement, and art, the expression of human life, is permeated by movement. The subconscious selection and combination of various movements expresses the inner experience of the artist. Certainly he is moved differently at various times. Still as far as he is moved his movements get some kind of constancy, some connection amongst themselves and also with those stirred by another emotion at a different occasion. This unmeasurable constancy of movement in one person is his individual rhythm. Indian art as a whole reacts as one person to impression and imagination, for the

consciousness of life's unity is the basis of all Indian creation. And its rhythm flows in round lines and is at its greatest ease in the edgeless curve of undulating forms. It surges as much as it sinks, it has as much breadth, as it is deep. It moves and yet it is at rest; it is pliable and vibrating, yet it has the strength of supporting itself. It never becomes sentimental; it never becomes conscious. It is the spontaneous, the inevitable expression of Indian life and its varieties are without number.

At times it becomes so subtle as to be scarcely recognised. We cannot always trace it as an undulating line. But the coherence of the structure of the building or painting, of the sculpture or the relief proves its presence.

In the *stupa* of Borobudur for instance, a late and complex form brought forth by one of the most ancient artistic traditions of India, rhythmical movement encloses the *stupa* as circular belts, in radiating meridians, pointing up and leading round in unsoluble continuity.

But the most accomplished, the extremely pure rhythmically organised volume of Indian art, the prototype of the Borobudur monument, is the ancient Buddhist *stupa*, smooth surface of the hemisphere which integrates all rhythm in geometrical exactitude. The plain simplicity of the Indian *stupa* is as significant of Indian art as is the undulating line of the lotus-device. They exhaust the possibilities of Indian rhythm.

An example of the fulness of all movements possible, united by one rhythm, is given in a relief representing the descent of the Ganges. The descent of the Ganges on a steep slope of one of the hills at Mamallapuram makes rhythm the law of its universe, where myth and nature, form and intuition, are welded into one choir agitated by significance. Nature offered to the artist the slope of a rock, so steep, so smooth, so regular, as an artificial wall. Only in the centre and just there it left

an unmistakable trace of the force of nature, the crack that destroys the smoothness of the surface. And the artist availed himself of this opportunity and made what nature offered by chance, the deliberate centre of his composition. In this descent of the Ganges from its celestial abode, where it dwelt before coming into the plains of India--strange to say--the water is to be seen, and no waves are represented. But gently the *Nagas* glide down in the shadowy coolness of the fissure a petrified stream sentient and voluptuous in humility and abundance. And with the *Nagas*, the rejoicing earth and the jubilating heaven unite in an untiring flow of song and dance, of *Gandharvas* and *Apsaras*, of hermits and animals, floating in happiness. Figures pour down like rain, the rock has been made liquid by movement.

Concentrated movement, the intensity of the artist's emotion, transforms stone into the cosmic stream of life, it transforms nature into art and bestows on every Indian composition measure and completeness.

VI

EVOLUTION : 'THE HISTORICAL MOVEMENT'¹

Rhythm, the life movement, on its way through realisation and concreteness has to meet obstacles. These obstacles, however, bend it into proper shape and give variety and taste to the flow of creative vitality, and are at the same time the stepping stones of evolution. They introduce the periods of art-history. Historical events, the succession of generations, the migrations of people are such obstacles.

With regard to India neither the obstacles nor the artistic reactions are fully known and in so far we have to refrain from rendering the biography of Indian art. Still there are in the vastness of Indian art relevant moments, there are on the other hand permanent constituents and from their intercourse the various periods of Indian art result.

Art as well as life has youth, manhood and old age. But while the symptoms in the case of man are unmistakable, they easily mislead with regard to art. What in one case might be features of degeneration may at another instance prove to be the sign of earliest youth. No theory whatsoever will be able to discover the inner evolution of art. For although the work of art in itself is significant of an ultimate reality, it reveals the infinite in the finite form into which it is pressed by the various ages and civilisations. Every form of art, therefore, is at the same time an expression and document, creation in an absolute sense and historically determined. Through incidents it is enabled to reveal that which is above all accidents, the unchangeable truth of humanity.

We do not know when India started to evolve her art, preserved to us from the early centuries before the Christian era only. It grew long before that time and steadily absorbed

¹ Lecture delivered at the Calcutta University on the 9th August, 1922, by Miss Stella Kramrisch, Ph.D. (Vienna).

the currents that made it fuller and wider in range. In a retrospective way, however, the monuments clearly profess the origin of their main principles as well as their relative succession.

It is not our endeavour at present to fix the date of the monuments and to distinguish one period of Indian art from the other. For in order to specialise in minute research, the recognition of those forms and principles is needed which underlie Indian art from its beginning. These permanent constituents of Indian art, are carried on throughout all changes, although they are themselves subject to them, and represent steps of evolution, anterior to the monuments preserved. As the features of a child tell of his parents and ancestors, so certain items customary with Indian art reveal the history of its past which has left no other documents.

The feminine ideal of beauty, canonised by Indian art, goes back to a matriarchal civilisation, where the mother ruled over society and was sanctified. The exaggerated forms which Indian art gives to its heroines, express in a most convincing manner their function which at the same time is their mission. No other art in the world preserved and developed the palæolithic ideal of femininity.

The so-called "Venus" from Willendorf, the most perfect of all palæolithic sculptures in the world, found in Austria, has no face, but a mass of heavy locks grow all round that topmost protuberance which is her head. And her body in unlimited fertility produces such round, heavy forms all over. Another palæolithic statue from France, less "idealistic" in its conception, achieves by mere accentuation a similar, though not equally convincing, effect. Indian art in its treatment of the female figure and tree does not differ too much from the palæolithic treatment. The exaggerated size of sinuous forms, however, has been modified but not lessened. The statuary and ostentatious exhibition of super-feminine perfection, however, has become animated by the charm, a

peculiarly Indian graceful position, which shows and hides whatever is needed and accentuates and yet connects all forms. The palæolithic ideal of feminine perfection, lent its artistic interpretation so readily to Indian creativeness for it offered itself as a theme, as a subject-matter which possessed exactly the qualities Indian art was eager to preserve.

The feminine ideal dates back into remotest antiquity; it presents the earliest stage of human art in the continuity of the Indian tradition. It is undoubtedly a pre-Aryan ideal of society as well as of bodily perfection.

The counterweight which the Aryan spirit placed in order to balance the ever-moving, ever exuberant, infinitely productive art-instinct of the aborigines was the distinct, sharply defined form of the aniconic geometrical symbol.

Symbols denote the limitations of art. Where imagination grows so strong that no visible form is able to fasten it, by a strange law of contradiction just the simplest and most limited forms are chosen in order to suggest, but not to embody the contents of imagination. Aryan thought invented those marks like the swastika or the wheel in order to denote to the thinking mind by the shortest possible abbreviation the inner meaning of cosmic conceptions. Those signs, however helpful to the meditation and cherished by the religious devotee could not maintain their position in art. Early Buddhist art tried in numberless representations to make the symbol the chief figure of composition. Wheels are worshipped and *trisklas* and *śūpas* too and their number is immense. But they do not hold their position. They withdraw from centre and front row into the background of Indian art where they safely continue an unpretentious existence, as ornamental devices.

Symbols have no power of their own. As long as they are associated with religious conceptions they possess intense suggestiveness. The moment however the religious contents lose their significance, the symbol robbed of its

mission sinks down to an element of ornamentation. The struggle between Aryan symbolism and aboriginal creative vitality is still to be witnessed in early Buddhist art. Later on, however, the symbol overwhelmed by the creative vitality of art withdraws from sculpture and painting and restricts itself to its function as *lingam*, an object to be worshipped and not to be considered as art. Thus symbolism having made an attempt to intrude upon Indian art, feels the uselessness of the struggle and withdraws from the attack of exuberantly growing forms into the lap of religion, from where it originated.

If the male and female principle may be connected with creation we have to admit that in India the female principle directed and supported the growth of art and the wealth of forms, the device of woman and tree is in fact the keynote of Indian sculpture while the male principle the *lingam*, the symbol, after an unsuccessful attempt of creating art was doomed to continue its existence in the neighbour-land of religion. The meaning of this male-female relationship is, that the palæolithic, the matriarchal stage of evolution retained a lasting influence on Indian art, while the later stage of civilisation, of agriculture with its cosmic symbols and phallic worship exercised a secondary influence only. The historical succession of the two principles, however, coincides in the case of Indian art with the two different races, the Aryan and the pre-Aryan inhabitants of India. The Aryans who came to India in so late a stage of civilisation as is represented by agriculture failed to subdue the tropical creativeness of the aborigines, who as far as art is concerned carried on the realisation of palæolithic conceptions.

The remote antiquity of Indian art, its artistic past, lies in the palæolithicum. Other civilisations forget their past—the extraordinary quality of palæolithic drawings in Spain and of palæolithic sculpture in France and Germany remained without succession. Bushmen, on the other hand,

drag along their pre-historic ties which fetter them up to the present day to palæolithic forms of art. But Indian art infused ever fresh life into the forms standardized in pre-historic times.

The symbol however, although of epistolical importance only, exercised an influence, which Western scholars are apt to interpret in favour of Greek art. The instance is the Buddha image. When the *Sangha* was established and wanted to communicate the message of Buddhism to all the members, it first declined in obedience to the Buddha's own words—the representation of the Buddha as a human figure. And thus we see early Buddhist art peopled by uncounted figures of men and animals, whilst the one, the chief figure, the Buddha, is left unrepresented and some symbol takes his place. The situation, however, changes the moment the Hellenistic art of the Roman Empire enters the borderland of Gāndhāra. There a Buddhist art is evolved centring round the Buddha, who appears in a dull sort of Apollonic beauty or realistically emaciated and in an artistic respect utterly insignificant. The current opinion, therefore, is that the provincialisms of Roman artisans led to the invention of the pictorial type of the Buddha.

But such an opinion mistakes historical coincidence and contact for ultimate reason and makes it a dogma. Yet dogmas crumble into dust when exposed to the current of life. And the life-current of Indian art is full of figure in all aspects, in all movements, in all groupings possible, and still as far as early Buddhist art is concerned, the chief figure, the Buddha is left unrepresented and some symbol, wheel or tree or *stupa* or footprints takes his place. Aryan symbolism lent its conceptions to Buddhist art; these, however, could not resist the life-intoxicated forms around them. And so we see in a relief from Bhārhut, for instance, representing the descent of the Buddha from the Trayastrīṣa heaven, where he went to preach the doctrine to his deceased mother Māyā—

we see in that relief the ladder which links earth and heaven and the symbol, the Buddha's footprints on it. These, however, are freed from symbolic parallelism and are placed on the ladder the one on the lowest, the other on the topmost rung. Action has taken hold of the rigid symbol, and the footprints are made to suggest the Buddha's descent, in a comprehensive manner, as one is going to take the first step, while the other already has performed the descent and occupies the lowest rung. Indian art is not satisfied with symbolic representation, it needs life itself for its subject and the organical evolution of the Indian principle of representation points towards gradual substitution of the symbol by the form which belongs to the Buddha's body. At last the symbol is overcome by the representation of the Buddha endowed with all the signs of the superman, the *Mahāpuruṣa*. This was a natural evolution in which the artistic creativeness proved stronger than symbolism and abstraction. And the art production of Gāndhāra readily supplied the market with those Buddha-figures which were the latest fashion. India does not owe her Buddha image to Greek influence. And it is superfluous to show that the Buddha image is one of the most accomplished expressions of Indian art. Historically, however, the Buddha image represents that moment in Indian art, where Aryan symbolism became conquered and absorbed by the artistic vitality of the pre-Aryan and got transformed from the symbol into the abstract measure which rules over Buddha's figure. His tranquillity preserves the unchanging function of the symbol which has become merged into the boundless life that animates his limbs.

The process, however, of assimilation had steadily gone on and panels like that of the lotus in Ajantā are the accomplished result of an evolution which amalgamated abstraction and artistic vitality. The pattern to which the design is subjected is as far removed from embellishment and ornamentation as the landscape of lotuses and birds is removed

from descriptive naturalism. It is an over-world where the law is the life, and the rhythm the rule of that pure harmony which produces stalk and leave, ground and figures with equal charm.

Though Indian art, as far as we know it at present, on account of the destructive power of climate, wars and invaders, does not date further back than the 3rd century B.C., the relatively recent works of art have preserved their past which dates back as far as the palaeolithic period. In this way art itself, by the process of its life, compensates for what nature destroys and this resisting capacity we call tradition. Tradition is the super-personal context of a spiritual unity which has so much vitality as to withstand the attacks of time; it is measure and proof of the strength of an artistic conviction. Tradition is the nationalism of creation; it grants the fullest development of vision within the reach, within the limits of the artistic individual. The unavoidable continuity of the personal experience expresses itself through tradition, that is to say, in one direction which has no will but necessity. The Indian artist is anonymous. He, as a rule, did not care to transmit his name to posterity. And his silence talks so eloquently of his consciousness that was rooted in the past and soaked its nourishment from the far remoteness of primeval instincts and from there it got the strength to resist and to endure the future, and much effort was spent to keep those channels smooth and clean through which the heritage circulated and the prescriptions how to do it were stored in the *Śilpaśāstras*.

In this way Indian art is the work of the artist, who has no other name than his art. It simply is Indian and he is an ageless person, whose presence to-day is witness of his existence yesterday, and whose yesterday's experience is alive in the expression of to-morrow. And it is the unity of his personality which reacts upon the outside world, the extraneous currents of art in one coherent manner. He is not exclusive and he accepts willingly all possible views and

forms. Mesopotamian and Greek, and later on Italian and Persian, notions entered the open gates of Indian art and were welcome in genuine tolerance, yet they themselves could not hold the position offered to them. For, the process of form, of internal evolution of the Indian tradition was so strong, that they either withdrew completely or slowly surrendered to the irresistible course of Indian art. Such was the fate of some few devices inherited from Mesopotamia and imported from Greece—the Greek *Akanthos*, for instance, or of those winged or coupled beasts,—weak children of Mesopotamian parentage, or of those Greek folds which made so gorgeous draperies in Gāndhāra. But while *motifs* belonging to foreign tradition were either assimilated or forgotten, some of the earliest *motifs* of human civilisation in general were preserved and became continuously remoulded and their chief representants are *Stūpa*, and *Sikhara*.

The *Stūpa*, intimately associated with Buddhism has its origin in the funeral mound which covers the relics of a hero. The Indian artist, however, adapted its shape to the roundness of a hemisphere and in this way he made it Indian. The *Sikhara*, on the other hand, confesses by its outlines that it was conceived not far away from the poor huts of pre-Aryan tribes who covered their four walls by a conical roof of bamboo and thatch.

Such are the contributions of pre-historic India to its artistic tradition. Feminine ideal and creativeness, abstraction and symbol, *stūpa* and *sikhara* are the most ancient qualities and forms which determined the course of Indian art. They were taken up and carried on in tempered measure and revolutions are unknown in the continuity of their growth. One transition, however, deserves notice. We can witness it in early Buddhist art, on the railings of the *stūpas*, on the façades and in the interior of cave-*chaityas*. It is the transition from wood to stone as a building material. The railings and gateways preserve the petrified wooden forms of a simple

structure which joins posts and beams in the carpenter's way, and the façades of the rock-cut temples betray in their gabled windows the adaptation of wooden forms to stone. What is the reason of this strange disguise, and what is its meaning?

Form or movement, word or sound, thought or clay, the moment imagination gets hold of them they become transformed ; just as the log of wood or coal changes into flame and ashes if brought into contact with a spark. Matter, therefore, and with regard to creation, ideas and colours, lines or stones range equally as material, matter itself becomes expressive through the position into which it is placed by art. The transition from wooden forms into those of stone in Mauryan art tells that the perishable material had become substituted by a more durable, that stress was laid on permanence as if it were a visible artistic quality. Herein lies some fallacy and we have to seek for its reason. At any time of Indian art the most precious and the most commonplace materials were equally welcome to the artist. A clay idol may be as full in invention and minute in execution as the radiant splendour of any bronze or marble statue. The Indian artist is not concerned with the choiceness of the material. Anything to him is good enough, which helps to realise his vision and the wealth of his vision is so great that he does not mind howsoever many of his works might get destroyed for he has the surety of never stagnant resources of his imagination. Outward reasons, therefore, must have led to the substitution of stone for wood in Indian architecture. And these reasons were partly religious and partly political and were imposed on the artists. King Aśoka's zeal to propagate Buddhism, made him select stone, the permanent material, for his edicts which he had chiselled into the rocks and in stone pillars, so that the *dhamma* may endure, and it made him employ art as the best means for religious propaganda : for visible forms, he knew, are of wider and more immediate impressiveness than words are, and wishing that the *dhamma* may spread

everywhere and last for all time, he selected art and stone as material for his noble purpose. And Indian art from his time onwards continued to build in stone as well as in wood and bricks and we owe the preservation of Indian monuments to a great extent to the interference of this ruler. This historical fact, insignificant from an æsthetic point of view, is of great importance with regard to the history of Indian art. Unfortunately, however, we do not know hitherto of many more similar outward irritations, that influenced the course of art. We cannot yet see the uninterrupted chain of its tradition and adaptation to new contents. But some of its relevant moments rise from the mass of monuments and are the landmarks of Indian art.

Early Buddhist sculpture, on account of its sudden, unprepared appearance, contains in concise manner the solution of problems which remained of vital importance during the whole evolution of Indian plastic. Plastic itself, as the quality of Indian art, is fully developed in the early Buddhist stage, and corresponding with it the undulating rhythm. The spatial formulæ, as they remain throughout the later representations, are also made use of to a large extent. In fact early Buddhist art, though it presupposes for itself an age-long development, represents the most vital moment of Indian art. There the artist, unburdened by self-imposed rules and simply representing the life which surrounded him and which he lived, found his expression as a matter of course. And as it was so purely Indian, and so vigorous in its narrowness, it sufficed for coming generations, and provided them with a *repertory* of forms that were their mother tongue, and every individual period of Indian art history would lay its own meaning into it and enlarge the possibilities of expression. The evolution of Indian art, if compared to that of Europe or of the Far East, seems to follow one line, sure of its genius which does not attempt anything beyond itself and never experiments. While Europe, for instance, moved between the

poles of Greek hedonism and Christian spiritualism and the evolution of European art throws itself with fanatical vehemence from one extreme into the other, India maintained its unbroken tradition, that is to say, the unbroken strength of its peculiar inner experience which it never squandered in experiments, but fully translated into visual form. As the stage of Indian art in the centuries before Christ represents the store-house of invention, other periods add to it and enlarge it by developing one or the other quality to full unfoldment. And in this way Indian art never becomes extreme and never abstract. Even if one principle is carried out in severe logic and is brought to final solution it rests on the whole undying stock of tradition which bestows on it the effortless accomplishment of the masterwork. Such final or comprehensive solutions of Indian creativeness are the Buddha image as conceived in the Gupta period, the South-Indian image of Siva and the late and complex pictorial realisation, the *Rāg-mālā*.

Those supreme conceptions are the ultimate words Indian art has to say about itself, yet it utters them without solemnity for they come so natural and have all the grace and charm of life.

The Buddha image raises life on the pedestal of transcendental existence. Its rigorous symmetry is not an abstraction but the harmony of unirritated accomplishment. The sculpture is enlivened and the body transformed by the flowing rhythm which makes *nirvāṇa* circulate as the life of the Tathāgata and rest on his meditating hands.

The Śiva image unfolds life's energies in completeness. Yet so absolute is this movement, so restless the action that in its perfection the movement becomes rest. The images of Śiva and of Buddha thus embody two opposite principles, complete rest and complete movement. They visualise it in so perfect a manner that the peace of the Buddha figure becomes the movement by which it is animated and the whirl of Śiva is the state in which he is at rest for ever.

Those two conceptions are the measure of Indian art, just as Greek art is measured by the embodiment of human beauty, Chinese art by a realisation of absolute landscape and Egypt by the hieratic transcendentalism of its statues.

The *Rag-mala* painting on the other hand has not the decisive significance of Śiva or Buddha image. Still they stand late in Indian art in a position similar to that which the early Buddhist sculptures occupied. They sum up the achievements of a tradition which can be traced for about two thousand years and yet they are fresh with originality and full of promise for coming generations.

India always reacted in her most individual manner upon the contact with other civilisations. When in the time of Aśoka intercourse took place between India and Central Asia and foreign views and forms flocked in, they were admitted and found their place, though for a very short period only. Afterwards they became forgotten and were assimilated. This short interim, however, would not have been of any importance for Indian art, had it not stimulated its growth. *Rag-mala* painting and early Indian sculpture are both indigenous reactions against the contact with the art of other civilisations. The European, Persian and the indirect Eastern Asiatic influence which got mixed up with the Indian tradition in Moghul court-paintings, were ignored by the purely Indian Rajput paintings and still though Rajput painting does neither borrow nor imitate forms or design, yet it is connected with Moghul painting and the foreign influences by reaction. And reaction with regard to Indian creation means a fresh impetus towards the realisation of its inner trend. Therefore, the Buddha and Śiva image represent the perfect expression of Indian creativeness, self-contained and ultimate while early Buddhist sculpture and *Rag-mala* stand for the broadest expansion of the Indian possibilities of form. In this way they are conclusion of one intense development similar to the broad mouth of a river and yet at the same time they are the

fertile land around, which contains already all the seeds and all the nourishment for the future. The historical movement of Indian art, unlike the zig-zag speed of Western evolution, goes on from expansion to intensity and from intensity to expansion and gains in this way circumference and depth both of which start from one and the same centre which is carried on by the centuries and its name is the creative genius of India.

At the present moment an age of expansion, of contact with East and West, makes Indian art recollect its past and create its future. The suppression and forced westernisation it had to endure through a relatively short period caused the truly Indian reaction of a conscious movement, which keeps alive the Indian tradition and adapts it to a new age.

In the picture of the banished Yaksha the dramatic expression of the figure is accompanied by compassionate trees. A quiet depth lingers round their stems and within their branches and it is the perfume of the grass that spreads around the figure, so that he is no longer alone. And his movement answers and the answer reaches far into that depth which is his emotion. Emotional rhythm which in older times projected the space of soul somewhere outside the work of art has become condensed into the frame of one picture, where the landscape, at the same time, stands for nature and is saturated with human emotion, and both are the fringe and the transparent veil which hide and suggest the infinite.

Other artists of the present day less comprehensive in inner experience and artistic means, work in a way similar to that of the prophets who are instrumental for that vision which surges from the fate of the past and proclaims that of the future and which is realised in the utterance of their vision, whether they be words or the visual signs of the work of art and they stand up obedient to that force which drives them and proclaims their message. And their diction has the boldness of the matter of course. What

seems to be the most spontaneous, the most individual expression, of a modern artist is the unrestrained manifestation of the inmost necessity of creativeness which belongs to a unit greater than that of individual existence and whose name is India.

The unknown artist who paints to-day, his conventional pictures in some hut in Kālighāt, infuses to the limbs of Hanūmān the vigour of an age-long training which has become filtered from all that is superfluous, and has gained in all its simplicity the significance of a movement where the stroke of the brush is the time of undying life, the eternal melody of the Indian line which gains its volume in edgeless roundness.

STELLA KRAMRISCH

RETRENCHMENT AND REFORM

The constitutional Reforms in India have unfortunately brought in their train heavy deficits in the Central and some of the Provincial Governments and the ingenuity of financiers has been taxed to the utmost to restore financial equilibrium. These deficits may be traced to the following two causes :

1. The administrative machinery which was set up in the early days of British rule has been found unsuitable from time to time owing to the march of social, industrial and political life and it has been kept up in a serviceable condition only by patchwork. New appointments, new services and new departments have been superimposed upon the old, by which the old structure has outgrown its usefulness. The machinery looks like a rambling and unsymmetrical structure displaying the manifold and desultory handiwork of men of different ideas and talents and has been sustained somehow in order to suit temporary convenience. It requires pitiless overhauling, or scrapping if need be, to be replaced by a simple, beautiful and modern structure irrespective of all considerations for its venerable age, its past service and its antiquarian interest.

2. The award of the Financial Relations Committee has thrown large surpluses into the coffers of most provinces by diverting the funds from the coffers of the Central Government and of Bengal, which have been left with yawning deficits. The deficits have been accentuated, and the surpluses of the other provinces have been seriously affected, by the grant of lavish concessions to what are called the Imperial services in the shape of salaries, compensatory pensions, and allowances on a sumptuous scale in utter disregard of the finances of the country, with the view of securing their positions and prospects on a firm basis in anticipation of the Reforms, which, it was feared, would jeopardise them.

English and American politicians and political writers have claimed that the Indian Government is one of the greatest triumphs of constructive statesmanship and the political genius of Great Britain. So it is: successive administrators have added their quota to this constructive work by infusing into it the spirit and even the matter of British traditions and institutions, and added a charming variety to the work by colouring it with current English ideas and the political views of the party to which they belonged. The question then arises why are Indians not satisfied with this transformation,—this transplanting of British methods and British elements of civilisation? Why, it may be asked, are the people so unappreciative of the great sacrifices and self-denials the Britishers have made, the time and energy they have bestowed, the political genius they have displayed and the sincerity and the earnestness with which they have worked? The reason is, that in their zeal to transform India into an Imperial province they forgot the psychology of the people. The discontent, the political troubles, the rulers' suspicion of the people and the continuous and heavy additions to the protective machinery to tighten the grip over the people, are all attributable to the inevitable incident of governing India according to English ideas of society and English theory of politics. This was the immitigable blunder of British rule, and but for this blunder the British government might have achieved more in fifty years than it has done in one hundred and fifty. The consequence of this mistake, which was discovered too late, is that the Indian administration, though an admirable and stately structure, still remains in an experimental stage of evolution. It has been subjected to repairs from time to time without any thought of right economical adjustment of work or of the best way of bringing contentment and happiness to the people according to their own ideas. The administration has been forced and has not been built upon the national characteristics of the people. The most natural and sure way

of insuring its usefulness would have been either to prepare the way for the masses to acquiesce in British systems and ideals, or to conform it to the standard and ideals of the Indians. But as none of these policies was adopted, we are confronted with discontent in spite of the finest qualities of the Britisher which the administration cost him.

The result of the series of attempts to adapt the administration in India to British rather than to Indian ideals has been a most complex and costly system. Indeed it is complex because it is costly. And it is costly because it is insensible to the financial and industrial capacity of the people. The outstanding vice of a costly system is that it engenders certain social and economic evils which are opposed to the fundamental principles of good government.

A remote sovereign, such as the British people is, was originally influenced by self-regarding motives in sending out a large number of surplus inhabitants of his own nationality to this country, where they found a new, ready and congenial field to improve their career. The old motive of colonisation, *viz.*, to provide a lucrative career for men of their own kith and kin was the ruling policy, and this was carried to such an excess that new avenues and new services were created for their benefit, on scales of remuneration commensurate with the profits which the clerks of the East India Company made in those days out of reckless commercial exploitation and political plunder. The administrators of British India are the developed and finished forms of these clerks who were extravagantly remunerated out of the profits of the salt monopoly introduced by Clive. These remunerations were not the legitimate salaries of office determined by the nature of the duties and the capacities of the men, but represented a share of the profits of trade. They were, therefore, an irrational and unsuitable basis for fixing a standard of salaries. The second ruling motive was to place these men, good, bad or indifferent, in positions of trust and responsibility,

lest the colonising nation should suffer in gain, power and prestige. These were the two dominating motives of the Sovereign power in its relation to India and from these two motives flowed all the good and all the evil according to the manner in which they moved the head or the heart of good or bad administrators.

The social and economic evils of a costly administration in which men in power are foreigners to whom natives of the country inevitably look for the material advantages of life, are obvious. The maintenance of a scale of high salaries for members of the ruling race, and of a low scale for Indians, engendered a sense of inequality in the services which had far-reaching social effects. On the one hand, there was produced a sharp cleavage among the administrative officers, dividing them into an inferior and superior service, based on a distinction of race, in which the latter regarded themselves as masters and the former as servants, whose only prospects depended upon their ability and temperament to keep them in humour. The result was an inevitable growth of the vices of sycophancy, obsequiousness, meanness and timidity which hamper the moral and intellectual advancement of a nation.

This invidious distinction was sought to be mitigated by the grant of honours and titles, which, while compensating Indian public servants for the inferiority of their position, created a fissure in the social order, by placing on these honours a unique and artificial value which neither money nor social virtues could buy. In another way, the effect upon society was highly injurious. The existence of a superior service in which the whole power was concentrated in an autocratic government in alliance with Indians, produced an undesirable cleavage between the people and the public servants. The pursuit by Indians of public services as an end of life became a craze: because public office invested them with a safe and secure social position which no

other occupation did. It was safe because it enjoyed the protection of the ruling power ; it was secure because it enjoyed handsome emoluments and could be transmitted as a hereditary occupation. This situation, which was an indication of the birth of a new social class, inspired in the minds of the people a sense of awe and aloofness which was eminently incompatible with the proper and impartial discharge of their duties to the public, of which, they forgot, they were the servants and not the masters. It raised them above the status of the general public at their expense, converted them into a separate social class, and conferred upon them an artificial position of power and wealth from which they looked down with arrogance and pride upon the latter as their inferiors and servants. The public, on the other hand, learned by experience to look upon the public officers with awe, not unmingled with disdain. The whole order of society became disturbed and disorganised ; there was no co-operation between the governed and the governing classes ; there was an undeserved and undesirable accumulation of riches and power in the hands of a few, and society began to show all the evil symptoms of the inequalities of power, privilege and prestige.

The economic consequences were no less marked and serious. In a country where the sources of social activity and income are limited, the system encouraged the growth of a special well-to-do class side by side with a class which lacked all the means of a healthy and vigorous life. Money raised from land, the main source of industry, from necessities of life, such as salt and clothing indispensable to the poor, and from sources which are repugnant to all ideas of ethical finance, such as opium, liquors and intoxicating drugs, formed the main-stay of the financial administration, and was spent on ever-increasing salaries of ever-expanding departments. This system of taxation, which exploited the very sources of a healthy and moral life, reacted terribly on the poor, who were laid under contribution to meet the demands of the

pampered few. No financial system can succeed, unless it conforms itself to the industrial structure of the people, and adjusts itself to its social and economic condition. Now, the industrial structure of India has never been well developed, nor built on solid grounds; and the disproportionate cost of the administration was not justified by the weakness of this structure. In trying to impart what was called a "British character" to the administration, the general income of the people, from which the funds of the state are drawn, and which should exert a decided influence on the extent and character of the functions it can undertake, was entirely lost sight of. The administrators did not accept the social income but the "British character" of the administration, as the controlling factor and the starting point in their programme of taxation. Financiers in all countries have admitted that the ruling principle in public finance should never be the covering of the expenses of administration on a scale incompatible with the capacity of the people, but should rather be to maintain a just and harmonious proportion between the capacity of the people and the cost of the governmental machinery. It would be silly to assert that the lavish cost of government was stimulated by pure selfishness or wickedness: but it would be just to remark that it was actuated by weakness and a desire to assert the social and political supremacy of the ruling class. This weakness and this desire is responsible for the drying up of the sources of taxation and is the controlling factor in the present situation.

The present extravagant cost of administration, prompted by false ideas of efficiency and suggested by British models, is partly responsible for the issue of an inflated currency and terminable loans, which are the root cause of high prices and demands for high wages which are disorganising the trade and industry of the country. The "reformed" salaries were sanctioned at a time when the budget of the central government had been showing increasing deficits. In the four years

ending 1921-22, the finances disclosed a deficit of ninety crores of rupees. This was an abnormal condition of finance, and the Finance Member adopted the unusual method of meeting it by papers and parchments. He asked to himself in the Assembly "where did this money come from?" and he returned the short answer: "we have been living on credit"! He continued: "about 37 crores have been obtained by the issue of fiduciary currency notes, *viz.*, notes the only backing of which are our own I. O. U.'s. A further 47 crores will have been found by incurring floating debt in the shape of Treasury Bills, while the remaining 6 crores will have been taken from the proceeds of our regular annual borrowings." This is in all conscience a dangerous financial expedient to follow in a country where the springs of taxation have run dry; and it has, as anticipated, reacted on prices and wages, and consequently on trade and industry, not to speak of the lamentable distress it has caused to the middle classes and the poor. High salaries, inflation, high prices and high wages therefore all move round and round in a vicious circle of which the beginning and the end elude our view. *General prosperity of the masses and not the prosperity of the public servants*—many of whom are foreigners—who do not at all contribute to the productive capacity of the country, is indispensable to a full treasury, which is again necessary for the moral, material and intellectual advancement of the people. The prosperity of a few public servants—and of the European commercial community—is not an unerring index to the general prosperity of the people; and the argument, which has been herein used, if it has any force and truth, shows that the latter is being ruthlessly sacrificed to provide high salaries for a specially privileged class. The present financial situation calls for an immediate and drastic remedy irrespective of all considerations of privilege and prestige which should be merged in the all-important consideration of a permanent amelioration of the finances.

It is not possible within the compass of this paper to go into the details of the administrative machinery with a view to indicate at what particular points economies can be made; but it shows the general principles on which genuine economical reform should proceed. With this object in view, the figures of the Bengal Budget for 1922-23 have been examined and analysed, and the results have been summarised in a tabular statement which is appended to this paper (Appendix A). The statement shows the salaries of the "superior" and subordinate executive staff, the allowances in various forms paid to them, and the contingencies incurred for their offices. The "superior" staff does not necessarily mean officers of the Imperial services, but includes gazetted officers of the provincial services. In many cases the salaries will perhaps be sufficient to differentiate the two classes of officers. The facts and statistics used in this paper relate to one province—Bengal. But the principles and arguments are of general application.

It may be admitted as an axiom that a certain number of Imperial service officers should be maintained in order to infuse new ideas and to introduce improved principles into the administration and stimulate new and healthy activities; for Imperial officers are expected to keep themselves in touch with world forces and ideas. But it does not seem to be essential to the vigour and efficiency of the administration to retain more than one Imperial officer in each minor department and two in the major departments. Starting with this premise, I will proceed to indicate the lines on which retrenchment is possible.

It will strike any reader who is familiar with administrative statistics that certain glaring instances of improvidence stand out prominently in the figured statement in Appendix A:

(1) The travelling allowances are staggering. For instance, the travelling charges of the Police on all counts exceed 25 lakhs of rupees which is approximately one-half of

the total amount which the government pays to the officers of all departments taken together, including the amounts expended by the Councillors and Ministers and the tour charges of the Governor. The extravagant scale of travelling and other allowances will be evident from a few instances :

(a) The Commissioners spend Rs. 23,000 on travelling by road and rail, and Rs. 48,000 on fixed steam boat charges for journeying by river.

(b) The District Police expends—

Rs. 1,64,000 on steam launches.

Rs. 2,90,000 for passes on Railways.

Rs. 13,29,000 for travelling by road and rail.

Rs. 1,97,000 on boat hire.

Rs. 1,00,000 on purchase of boat and fixed boat establishment, and

Rs. 2,00,000 on house rent.

(c) The Presidency Police whose jurisdiction is limited to about 20 square miles spends :

Rs. 1,00,000 on travelling by road.

Rs. 71,000 on house rent.

Rs. 5,000 on motor cars.

[It must not be forgotten that they are also permitted to travel free in train cars.]

(d) The Forest Department with a staff costing Rs. 3,40,000 spends more than one lakh on travelling.

(e) The Education Department costing Rs. 3,50,000 in direction and inspection spends Rs. 2,50,000 (*i.e.*, more than 8 months' salary) on travelling.

(f) The Public Health Department with a superior staff costing Rs. 2,13,000 pays Rs. 1,00,000 as travelling expenses, and Rs. 31,000 as house rent.

(g) The Agriculture Department costing Rs. 1,59,000 in superior staff pays Rs. 1,25,000 on travelling and Rs. 13,000 as house rent.

- (h) The amount paid in salaries to officers of the Industries Department is Rs. 90,000, and to clerks and menials Rs. 1,14,000, travelling allowances and contingencies cost about Rs. 94,000 or a total of about Rs. 3,00,000. The distribution of the expenditure under the different heads is unequal and unsymmetrical, and the expenditure of the department is not justified by the results so far attained.
- (i) The Fisheries Department consisting of 3 officers drawing a yearly salary of Rs. 27,500 spends Rs. 28,000 in travelling and Rs. 10,000 in contingencies.

The above are some of the most glaring instances of extravagance; and, without entering into the vexed question of the administrative necessity of the quantity of travelling to be done, it may be said that the state of things is unhealthy and requires to be remedied. The remedy lies, therefore, in one direction: it is not to curtail the amount of travelling but to curtail the rates. For this purpose, a wholesale reduction in the rates is necessary: none but Imperial officers or Provincial service officers acting as heads of departments or of districts, should be paid travelling allowance at first class rates; double travelling charges should be abolished except in the cases of officers ordered on transfer. The tour expenses of the Governor should be cut down from Rs. 84,000 to Rs. 50,000 and he is expected to keep the charges within this limit according to his personal discretion. The members of the Council should be paid at single first class rates and not more frequently than once a month.

(2) The next head which I venture to assail with great reluctance and with due deference to His Majesty's representative is the personal and household expenses of the Governor. The Military Secretary, the A. D. C.'s with their clerks and attendants, and travelling allowances, the

Band establishment and the Body Guard cost the state three lakhs of rupees. The Body Guard is a relic of an autocratic regime which is long dead and gone ; and this as well as the other paraphernalia of the Governor which are maintained in order to keep up his prestige are more fitting for an autocrat than for the representative of a great democracy.

(3) The welfare and advancement of the rural areas* are now entrusted to Sextuple agencies each with a separate inspecting staff and a separate bill of travelling charges : *viz.*, (i) the staff of the Public Health Department, (ii) the staff of the Agriculture Department, (iii) the Circle Officers in connection with village self-government, (iv) the inspectors of co-operative societies, (v) the inspectors of primary and secondary schools, and (vi) the inspectors connected with the development of home industries. The functions of all these officers, though technical, are of an elementary character ; and it is possible to train one category of officers in all these duties and allot to one officer trained in these six branches, a limited area, say 100 square miles. This will secure co-ordination, and prevent overlapping and waste of time, money and energy.

(4) I would do away with the Divisional Commissioners as they perform the same functions in the administrative machinery as the fifth wheel does to a carriage. It is an expensive luxury indulged in for the benefit of nobody but the Commissioners themselves. Their retention can only be justified on the score of supervision over the District Magistrates. But the District Magistrates are not boys ; and if they do require supervision like boys, they are unfitted to be placed in charge of districts. The days of having good masters exercising supervision over subordinate officers are gone,—it is hoped never to return. If responsible government is not to be a delusion, the real controlling voice

* I am indebted for this excellent idea to Professor N. Ganguly. Guruprasad Singa
Professor of Agriculture.

should come from the people and not from the Commissioners. Neither is it necessary to keep up an intermediate agency between the District Magistrates and the Secretariat to relieve the former of correspondence work. This intermediate machinery hampers the despatch of business, promotes bureaucratic ideas and tendencies, leads to differences of opinion and consequent correspondence for their adjustment, and fetters the judgment and independent opinions of the District Magistrates, who, as Imperial officers, should be allowed absolute freedom of thought and conscience in regard to good government.

(5) The Stationery and Printing charges which amount to forty-six lakhs of rupees, may, it is presumed, be easily curtailed. Holding in view the thoughtless waste of stationery as well as its sumptuous quality, it is safe to assert, without going into details, that the charges can be substantially reduced.

(6) A section of the P. W. Department, not dealing with the technical work of the Department, may be abolished. Experience has shown that during occasions of financial stringency many of the officers have no work, or less than the normal quantity of work, to do; yet the whole establishment is maintained from year to year at the same numerical standard, irrespective of abnormal, normal, and sub-normal activity in the Department. It would perhaps serve the ends of administration to maintain only the technical staff required for canals and special works of that nature, and to entrust the ordinary work of roads and buildings to private agency.

(7) There are at present four members of the Executive Council and three Ministers costing in all counts five lakhs of rupees a year. Past experience shows that a provincial administration can be managed efficiently with three officials, and it is possible to curtail the number by at least four unless they are deemed necessary on political grounds.

Among the general proposals for economical reform I should consider no proposal of so much moment and import as

the abolition or abridgement of the long hierarchy of officers maintained in the name of efficient supervision. In the executive line, we have the Kanungo, the Sub-Deputy Magistrate, the Deputy Magistrate, the Assistant Magistrate, the Joint Magistrate and the Magistrate. In the Police line, we have the Constable, the Assistant Sub-Inspector, the Sub-Inspector, the Inspector, the Deputy Superintendent, the Assistant Superintendent and the Superintendent. In the Education service, we have the Sub-Inspector, the Deputy Inspector, the Assistant Inspector and the Inspector. Similarly, in a more or less marked degree in the other departments. I would abolish, or as far as possible curtail, the intermediate functionaries whose duties are more or less of a supervisory than of an executive character. Many of these officers serve the avowed purpose of keeping the administration up to a certain standard of probity, industry and efficiency. But supervision may be either productive (or economic), or unproductive (or non-economic): excessive supervision is of the latter sort. It is as injurious or wasteful as total lack of supervision. It divides responsibility among a large number of officers, and thereby dulls or destroys the sense of responsibility altogether. It brings on idleness on many officers who are intended for supervision duty, and generally kills vigour and initiative in young, energetic, and capable subordinates. The reduction or abolition of supervisory sinecures, not only in district administration, but also in other branches, is one of the vital factors of economical reform, and may be carried out without any detriment to efficiency or integrity in the administration.

It is also a matter of common knowledge—though the fact is incapable of statistical demonstration—that in many departments, notably in the Police, the District Executive and the District Judiciary, there are many officers who do not turn out their salaries' worth of work. They enjoy a special privilege of exemption from early attendance and an immunity from

accountability on account of the loftiness of their rank and the nature of their duties. A wide field of investigation lies before Lord Inchcape's Commission in this line and a considerable saving can be effected if this *sans froid* and easy-going method of doing work is swept clean away.

I venture now to deal with a constructive proposal of first-rate importance to the district administration. It is impossible to show, by detailed figures, in this limited paper the total saving which may be effected: but it has been separately calculated with substantial and satisfactory results. I would reconstruct the district administrative machinery on rather bold lines, and in spite of the large volume of criticisms anticipated to the proposal, I am firmly convinced that the proposed machinery will be simpler, more effective, and more economical.

The principal work in a district consists of—

- (1) Judicial work,
- (2) Revenue work,
- (3) Preservation of law and order,
- (4) Detection and investigation of crimes.

It is not impossible to readjust the functions of the district officers in such a way as to result in simplification and economy. The whole work under the foregoing four heads is now done by the following classes and grades of officers: (1) District Judge, (2) District Magistrate, (3) District Superintendent of Police, (4) Subordinate Judges, (5) Deputy Magistrates, (6) Deputy Superintendents of Police, (7) Munsiffs, (8) Sub-Deputy Magistrates, (9) Inspectors and Sub-Inspectors of Police. I would redistribute the whole district work as follows:

(a) The whole of the judicial work, civil and criminal, will be done by Munsiffs (their powers being increased correspondingly with their present salaries), the present Sub-Judges being abolished. The only appellate authority will be the District Judge assisted by one or two Assistant Judges recruited from the Munsiffs. The Magistracy will be relieved of *all* judicial work.

(b) The post of the District Superintendent of Police will be abolished, or, more correctly, there will be a Superintendent of Police for four or five districts coinciding with the present jurisdiction of a Commissioner. The district will be in charge of a Deputy Superintendent, the Assistant Superintendents being abolished.

(c) The whole of the Revenue work will be performed by a Provincial service officer, the District Collector being only kept informed of important events and the progress of collections.

(d) The District Magistrate assisted by his subordinates (mostly Sub-Deputies) will do that part of the police work which relates to the investigation of crime. In this work, the District Magistrate will perform the same functions as are at present performed by the District Superintendent of Police and the work now done by Deputy Superintendents and Inspectors will be done by Sub-Deputy Magistrates.

(e) The regular police work, *i.e.*, watch and ward, and prevention and detection of crime will be done by the Police staff proper headed by a Superintendent of Police whose jurisdiction, as stated, will be coterminous with a commissioner-ship, each district being in charge of a Deputy Superintendent.

(f) I would assign to the District Magistrate, who should be an Imperial service officer, imbued with new and enlightened ideas and principles of administration, the amicable settlement of petty disputes without recourse to law courts and without the intervention of pleaders, by the exercise of his personal influence as the head of the District and the local representative of the Imperial government. This would facilitate intercourse between the head of the district and the people, and promote understanding and good feelings between them. The people will imbibe new and better ideas of what their welfare and advancement consist in, and the Magistrate will gain experience of the habits and needs of the people, and inspire his subordinates as well as the people with what in

his judgment constitute the best elements of popular well-being. I would require the Magistrate to study the main currents of modern world-thought, and apply the results of his study to the solution of the great and perennial problems of sanitation, education, industries and similar other elements of national well-being. He should also be expected to deliver lectures in the vernacular to educate popular opinion regarding these matters, and recommend from time to time measures for ameliorating the economic, moral and intellectual condition of the people after discussing them with local representatives.

I now come to deal with the most delicate and disagreeable, and, perhaps, the most audacious proposal that has ever been put forward—namely, an all-round reduction in the scale of salaries.¹ Without entering into an unprofitable attempt to compare our scale with those of other highly developed countries of the world, which would be both misleading and unconvincing, it can be said without contradiction that the improvident scale at which we pay our public servants is nothing more than a penalty for our political subordination to a rich and powerful nation. It cannot be denied that men who are paid at an ultra-liberal scale in this country would not be paid at one-fifth of these rates at home. Instances may be multiplied to show that men who used to draw a certain salary at home begin to draw four, five and even ten times the salaries they received in their own country, without any corresponding addition to their qualifications, or abilities or technical knowledge. This is accepted as inevitable owing (1) to the desirability of maintaining the British character of the administration, (2) to the lack of suitable men in this country, and (3) to our obligations to a conquering nation to support at our expense a large number of the unemployed and the unemployable men of their own kith and kin. These facts ought to convince the most sceptic that India pays enormously more

¹ *Vide Appendix B.*

than her money's worth on account of her political subordination, regardless of her inability to bear further taxation without sinking down in the scale of poverty and misery. During the last two or three years, the Government of India conceding to the demands of the public services and ignoring the financial condition of the country, raised the salaries of the Imperial and Provincial service officers at an annual cost of many crores of rupees. This crushing liability was incurred at a moment when the Finance Member was groping about for funds and when in the face of an accumulated deficit of ninety crores of rupees in four successive years, he told the Legislative Assembly with brutal frankness that the Government of India was living on credit! Could there be a more irresponsible way of dealing with public finance? Was he thinking of ethical finance when he had the bare-facedness to tell the Assembly with perfect *non-chalance* on behalf of the Government that he was issuing papers and parchments to pay increased salaries to public servants at a time when the country was rushing headlong into financial ruin?

I would grudge to pay liberally not the Imperial service men alone: I am also reluctant to pay my own countrymen at the present scale. The Indian officers who belong to the Imperial services naturally expect the same salary as their British *confrères* in order to maintain their parity of rank and status. If now, the imported officers are paid more than their worth at home, it follows that the Indian officers are paid on the same or on a worse principle. The whole system involves a reckless waste of public money necessitated, on the one hand, by the political status of India, and on the other, by the claim of Indians for equality with Britishers. The perpetuation of this vicious and wasteful system would preclude for ever the prospect of economical reform in India by what is called the "Indianisation" of the services. To effect the necessary reform in this direction, I would curtail the number of officers

in the Imperial and Provincial services and increase the number of officers in the subordinate services: for instance, as I have stated before, I would limit the number of Imperial service men to a few selected appointments, retain only a few officers of the Provincial service who are qualified by their ability and attainments to do the duties which are now performed by Imperial service men, and increase *pro tanto* the number of men in the subordinate services. To give one or two concrete illustrations: I would abolish the post of Deputy Magistrates, Assistant Superintendents of Police, Assistant and Deputy Inspectors of Schools, and have the work now done by them performed by one grade of officers and supervised by another grade, all intermediate grades being done away with, with a few exceptions for special duties and for training.

There can be no question that the scale of salaries in this country is inordinately high; and a student of public administration looking at public questions from the point of view of principle, the economic condition of the people, the financial condition of the country and the urgent and insistent demands for funds for developmental work all round, should not be deemed too bold to suggest the drastic reductions which I have proposed in Appendix B. The financial situation of India is so critical at the present moment that nothing short of heroic remedies will heal her.

In addition to this general reduction of the scale of salaries, I would suggest a territorial readjustment of the provincial frontiers which will bring about substantial economies. Without going minutely into the reasons for my proposals which are, by this time, well-known, I would—

- (1) break up Bihar and Orissa into two parts and incorporate one portion of it with the United Provinces and the other portion with Bengal;
- (2) amalgamate Assam with Bengal;
- (3) include the Central Provinces in the United Provinces

(4) merge the N. W. Frontier province in the Punjab:

I can quite anticipate the objections that will at once be raised on administrative, political and ethnological grounds; but I believe they are not insuperable and are capable of adjustment. Moreover, if my neighbours in the other provinces reflect seriously on the organic connection of their province with the whole of India, I hope they will waive all sentimental and provincial considerations and look at the question from the national point of view. Even if this hope is Utopian I place my anchor on the sole point that all other objections, however weighty, should be subordinated to financial exigency which is precipitating India, not only into financial, but intellectual, social and industrial bankruptcy. Do the people want progress or will they rest contented with a sentimental conservatism? Will they suppress in their hearts, an unsatisfied freedom to become what they can become? The answer to these questions can never be dubious nor difficult. The financial effect of the re-adjustment of the provinces, will be the emergence of three great provinces out of seven and a reduction of one Chief Commissioner, and three Governors, with their Executive Councillors, Ministers, Secretaries and all the paraphernalia of Governorship.

In the Executive Council of the Governor-General, the posts of Members who now deal with transferred subjects may reasonably be abolished without delay.

It is a hazardous task to go into the protective services of the State, *viz.*, the Military and the Police. It is often alleged that none but experts are competent to review the working of these special departments. While admitting the truth of this remark, it cannot be denied that lay opinion is not altogether negligible. There are principles and details in every administration: principles are the property of all men of sound judgment and intelligence; while details belong to the province of experts. This is why principles are classed as universals by philosophers, and details, as particulars. In every

country where there is a semblance of constitutional government, it is the lay minds that determine, and lay down, the principles; and experts work out the details. Lay minds bring to bear upon the administration certain broad principles derived from a study of social forces operating in the country and from a consideration of the different elements of public good, taken as a whole. Experts look at questions from a detached and departmental point of view, without regard to their bearing upon the whole. If the lay man claims any voice in the determination of the protective policy of the state to be carried into effect through the Military and the Police, that voice will of course be confined to an expression of opinion based on a consideration of the general financial and social condition of the country and its imperative need of progress and welfare. In every administration a certain equilibrium ought to be preserved between expenditure on general administration, expenditure on developmental work and expenditure on protection. The growth of expenditure on administration and protection at the expense of advancement and progress does not indicate sound pathological conditions in the society. Moreover, the proportion of expenditure on protection should bear a reasonable ratio to the social income out of which taxation is drawn, just as there should be an equable distribution among the people of social activities or industries for the creation or augmentation of social wealth. In all states, which have any pretensions to civilisation, the protective service, in the words of a great financier, should follow the law of diminishing returns, *i. e.*, as intellectual, social and moral progress advances, the cost of protection diminishes, and an enormous expenditure on the protective services is indicative either of moral and intellectual stagnation or retardation. Further, protection does not mean, except in a narrow sense, protection of person and property alone. That would represent the narrowest and the most elementary functions of the state without its higher ethical

functions. Protection in its extended ethical signification means protection against disease, ignorance and vice. A person must live the life of the normal human being before he is thought worthy of protection. What is the kind of protection which is sought to be given to the poor, the hungry the sick and the ignorant? The Military, it is said, protects the country. A country, however, is not an abstraction devoid of contents. The protection given by the military and the police is, therefore, a camouflage unless the people inhabiting it have attained the position of human beings worthy to be protected. Better that the ignorant, the vicious, the hungry and the miserable—the defectives, the delinquents, the diseased, and the dependents—be extinguished off the face of the country than they be protected by the military and the police!

Lord Inchcape's Commission has begun its labours. The humble object of this paper is to help the Commission with a few suggestions to indicate the spots where retrenchment is possible. The facts and figures given here are admittedly inadequate; but it is the duty of the Commission to listen to voices, however feeble, and to gather information from the meanest source. It has a tremendous task before it—tremendous on account of its magnitude, tremendous on account of its complexity and of the vastness of the knowledge of principles and details it requires; and above all the liability of its being dealt with in a sectional or racial spirit. It is unfair to prejudge: but all circumstances as well as previous experience lead us to apprehend that the European members will not lightly recommend the curtailment or abolition of the privileges or opportunities enjoyed in this country by men of their race. But India expects her own sons to do their duty fearlessly and faithfully and not allow themselves to be hoodwinked by statistics or hypnotised by the persuasions and seductions of interested well-wishers. It is perhaps supererogation on my part to warn them against misleading figures and specious arguments, and to suggest

that they look at the problem from a comprehensive and not from a narrow or departmental point of view. They should remember that every officer, every service, and every department is part of an organic whole and whatever system may be defended or whatever vested interests are sought to be protected, they should not overlook the paramount facts: (1) that economy can be effected only by simplicity and co-ordination; (2) that idleness and corruption should be rooted out, (3) that there should be less supervision and more means of inculcating responsibility, and (4) finally that there should be less bureaucratic spirit and greater responsiveness to public opinion.

SATISCHANDRA RAY

APPENDIX A.

ANALYSIS OF BENGAL BUDGET, 1922-23.

Head of Expenditure.	No. OF OFFICERS.		SALARIES OF OFFICERS.		Travelling Allowance and House rent.	Contingencies.	REMARKS
	Superior.	Subordinate.	Superior.	Subordinate.			
5A. Land Acquisition Establishment.	3	...	Rs. 60,050	...	Rs. 5,000 5,400 (H. R.)	...	
5A. Partition Establishment.	6	...	24,000	...	7,000	34,800	
5B. Government Estates.	25	74	83,200	41,200	38,000 7,500 (H. R.)	62,000	
5B. Survey and Settlement.	(a)	(a)	3,01,000	3,53,000	58,100	66,000	(a) No. not shown.
5D. Land Records.	2	...	35,400	...	4,000 4,000 (S. L.)	5,100	
6A. Excise.	6	31	53,400	31,620	20,000 3,750 (H. R.)	43,200	
6B. Calcutta Establishment.	2	...	37,200	...	38,500	7,200	
6C. District Exec. Establishment.	5	37	16,200	68,340	...	...
	24	228	1,08,600	3,66,740	1,90,000 40,600 (S. L.)	...	
6D. Distilleries.	...	45	...	58,700	6,300 (H. R.)	1,13,800	
8B. Forest.	30	495	1,51,250	1,89,800	4,000	13,000	
9A. Registration.	6	...	39,120	...	10,000 1,500 (H. R.)	3,900	
9B. District Registration.	...	473	...	6,24,240	28,900 2,000 (H. R.)	74,000	
22A. Governor's household.	5	...	96,675	...	24,900	12,500	
22C. Tour Expenses of Governor.	...	...	...	...	84,000	+ 40,000	
22D. Executive Council.	7	...	4,48,000	...	27,000	20,000	
22E. Legislative Council.	4	...	1,08,000	...	1,31,500 (b)	45,000	(b) Includes A. to members.
22F. Secretariat.	5	...	97,100	...	3,800 (H. R.)	...	
	3	...	62,200	...	43,000	40,000	
	3	...	48,000	...	41,200	...	
	2	...	40,800	...	(H. R.)	...	
	7	...	1,02,000	...	...	...
22G. Board of Revenue.	2	...	68,400	...	4,250	8,500	

Explanation of abbreviations: H. R. = House rent.
S. L. = Steam launch.
S. B. = Steam boat.

Head of Expenditure.	No. OF OFFICERS.		SALARIES OF OFFICERS.		Travelling allowances and House rent.	Contingencies.	Remarks.
	Superior.	Subordinate.	Superior.	Subordinate.			
			Rs.	Rs.	Rs.	Rs.	
22I. Commissioner.	5	...	1,80,000	...	23,000 (S. R.) 8,240 (Elephanta) 48,000 (S. R.) 2,000 (H. R.)	80,470	
22J. District Administration.	(c)	(c)	33,00,000	...	61,000 (S. R.) 5,00,000 14,000 (H. R.)	2,00,000 (d)	(c) Figures in Estimate appear to be wrong. (d) Approximate.
22K. Sub-Divisional Establishment.	...	...	...	...	43,000 3,000 (H. R.)	30,000	
24A. High Court (other than Judges).	13	10	1,34,000	36,700	1,000	50,000	
24B. Law Officers ...	12	25	73,200	70,200	...	37,720	
24C. Other Officers ...	3	...	90,000	...	7,500	1,50,000	
	6	39	1,07,000	33,000	...	2,36,000 (a)	(a) Including fees to Pleaders.
24D. } Presidency & Magistrates.	2	...	40,000	...	2,000 (incl. H.R.)	21,000	
24E. }	7	...	79,200	...	...	...
24F. Civil and Sessions Courts.	353	...	30,00,000	...	53,000	3,13,100	
		5,879 (b)	...	14,16,000	...	...	(b) Process-serving establishments.
24G. Small Cause Courts.	8	...	1,25,400	...	...	10,200	
25A. Jail-Superintendence.	4	...	46,200	...	...	3,660	
	1	...	20,400	...	4,300	...	
	2	9	27,600	10,300	1,000	1,500	
	7	47	61,500	55,900	3,000	...	
	23	86	25,000	1,35,600	...	73,500	
	1	4	8,400	10,700	1,000	...	
25A. Presidency Police.	17	789	1,64,600	8,23,100	19,800	1,08,000	
Constables and Sepoys.	...	3,762	...	7,47,900	8,400 (H.R.) 80,000 (H.R.) 5,000 (Motor cars.)	3,85,000 (Rents and taxes).	
28A. River Police ...	2	50	17,700	42,400	7,000	20,000	
Constables and Sepoys.	...	201	...	46,700	21,600 (S. L.)	...	

Head of Expenditure.	No. of OFFICERS.		SALARIES OF OFFICERS.		Travelling allowances and House rent.	Contingencies.	REMARKS.
	Superior.	Subordinate.	Superior.	Subordinate.			
			Rs.	Rs.	Rs.	Rs.	
26B. Superintendence	8	1	2,08,100	7,200	23,500 12,000 (H. R.) 4,350 (S. L.)	30,400	
26C. District Police	110	4,347	8,60,000	33,59,500	1,64,000 (S. L.)	7,35,000	
Constables and Sepoys.	...	19,037		32,31,000	13,29,000	69,000	
Temporary force	...	(not stated).		...	2,00,000 (H. R.) 1,97,000 (boat hire). 1,00,000 (boats) 2,90,000 (Ry. wts.)	2,94,000 (Rents and taxes)	
26D. Special Police...	4	93	43,700	40,116	9,000 24,140 (H. R.)	36,000	
Sepoys	...	753	...	1,02,520	15,000 (Ry. wts.)		
Frontier Police	...	231	...	66,720	6,900	9,100	
Police Training School.	4	165	31,740	1,08,000	20,000 10,000 (H. R.)	50,100	
26 E. Railway Police.	2	80	42,400	1,51,540	25,000 14,500 (H. R.)	11,500 44,400	
Constables	...	588	...	1,00,000	(H. R.)	(Rents and taxes)	
Constables	1	362	19,200	1,42,300	50,000 (all allowances)	56,000	
26 F. C. I. Dept.	6	127	55,600	2,87,400	73,000 59,280 (H. R.) 2,500 (Ry. wts.) 2,000 (Motor cars). 10,000 36,700 (H. R.)	27,200 55,000 (Secret service)	
31 E. Education	219	...	9,78,100	...	5,000 20,000 (H. R.)	64,700	
31 F. Secondary Schools.	...	755 (Teachers)	...	6,74,300	5,000 20,000 (H. R.)	70,000 37,000 (Rents and taxes)	
31 I. Direction Inspection	4 48	...	71,400 2,77,740	...	9,500 2,40,000 8,000 (H. R.)	29,000 41,400	

Head of Expenditure.	No. of OFFICERS.		SALARIES OF OFFICERS.		Travelling allowances and House rent.	Contingencies.	Remarks.
	Superior.	Subordinate.	Superior.	Subordinate.			
			Rs.	Rs.	Rs.	Rs.	
32A. Medical—Superintendence.	2	...	43,800	...	2,600		
Dist. Establishment	67	29	5,48,600	52,800	2,400		
33A. Public Health ...	24	130	2,13,440	71,900	50,000	8,000	
				1,36,000 (temporary)	1,00,000	1,05,000	
					30,600 (H. R.)	13,000	
34B. Agriculture—Superintendence ...	2	...	28,680	...	12,000	12,000	
					2,000 (H. R.)		
	21	184	1,24,640	1,15,000	1,00,000		
					11,000 (H. R.)	1,20,000	
		25	...	17,760		(unspecified.)	
34B. Sericulture. ...	1	54	6,000	31,000	13,000	1,13,000	
34C. Co-operative Societies..	7	6	68,600	11,400	1,16,000	24,000	
				1,35,000 (temporary)	14,500 (S. L.)		
35C. Industries ...	11	1	50,620	2,280	22,000	17,000	
Research Tannery ...	1	...	6,000	...	3,000	60,000	
Industrial Education	1	...	18,000	...	1,000		
					2,400 (H. R.)		
Fisheries ...	3	...	27,480	...	10,000	10,000	
					18,164 (S. L.)		
37A. Inspector of Factories.	7	...	52,000	...	15,000	4,800	
					10,300 (S. L.)		
37D. Smoke nuisance.	4	...	19,000	...	3,600	4,000	

APPENDIX B.

SCALE OF SALARIES PROPOSED.

				Rs.	
1.	Governor-General	...	...	1,50,000	a year
2.	Members of the Executive Council of the Governor-General	...	...	40,000	"
3.	Members of the Provincial Executive Council and Ministers	...	...	30,000	"
4.	Governors	...	...	75,000	"
5.	High Court Judges	...	...	30,000	"
6.	Secretaries to Government	...	...	1,500-1,750	a month
7.	Under-Secretaries and Assistant Secretaries (Provincial service officers).	...	...	500-750	"
8.	District Magistrates	...	...	400-1250	"
9.	District Judges	...	...	500-1500	"
10.	Heads of departments	...	...	1,000-1,500	" (According to the importance of the dept.)
11.	Superintendents of Police	...	...	500-1,000	"
12.	Deputy Superintendents	...	...	200-800	"
13.	Executive—Provincial Service	...	...	200-800	"
	Subordinate Service	...	...	100-400	"
14.	Judicial—Provincial (Munsiffs)	...	...	200-750	"
15.	Police—Subordinate Services	...	...	75-250	"
16.	Forests	...	...	(as in 13)	"
17.	Education—Provincial	...	...	200-600	"
	Subordinate	...	...	50-400	"

POEMS

(Adaptations from Kalim)

Dreams, music, wine—*all* now are memories !
 Gone with the sunshine that once gilded life !
 And this poor heart ? Like yonder wilted flower ;
 Or those lone hills when Sol hath sunk—cold, dead !

Riven with wounds that heart—Astream these eyes
 With burning tears—A broken blossom hope—
 Grief the sole star in all I have of heaven—
 Alas, what tokens deck thine altar, Love !

All fair things pass ! Even Love—that, too, must end !
 We hail the morn, but all too soon comes night ;
 Twilight blots out the brightest day ! Ah me,
 Life is one never-ending sad Farewell !

* * *

Here, in this so-called Jewel-Mart, my Pearls,
 By the undiscerning Dealers, every one,
 Are valued less—far less, alas—than even
 The simple thread whereon they all are strung !

* * *

Like sheathed steel, so dwells my Inmost Self—
 Splendidly lone—shut off from mortal view—
 Living its life in freedom absolute !
 How well that thus my Treasure lies concealed !

(Adaptations from Mir Taqi)

Salt, scalding tears—no idle weepings—these ;
Ceaselessly welling from my inmost heart !
Mute mourners of long vanished hopes and dreams
Once fondly cherished and in secret nursed !
Oh, saintly tears !—faithful companions,
Unfailing confidants, of Love—when Love was young !

* * *

Death ! Never, never shall I look on thee
Either with grief or dread ; for art thou not
Merely an incident in the endless flight—
Onward and upward—of the evolving soul,
Winging its wond'ring way to the bright goal
Of ever-beckoning, ne'er-attained, Perfection ?

Time flies, flowers fade, dreams die, and life speeds on ;
Saqi ! Thy cup—thy magic, sparkling cup ;
'Twill not avert, but haply it may stay,
The doom that here awaiteth, every one !

S. KHUDA BUKHSH

FOUR BRITISH THINKERS ON THE STATE—I.

In this series of articles, it is proposed to give, with some criticism, a fairly full account of the political theories of some of the most eminent thinkers of Great Britain in recent times. The names of T. H. Green, William Wallace, D. G. Ritchie and Bernard Bosanquet are well known to every student of philosophy. They all belong to what is known as the Neo-Hegelian School and are distinguished by their contribution to political philosophy quite as much as by their contribution to metaphysics and logic. Their theory of the state is, in substance, the same, and is derived largely from Plato, Aristotle and Hegel. In these days of widespread interest in political problems, an exposition of views which can never cease to be instructive may be useful.

(1)

T. H. GREEN.

During the last quarter of the nineteenth century, Green's influence at Oxford was supreme. When he began to teach philosophy at that centre of learning, J. S. Mill exercised the most potent intellectual influence there. Green and Mill were the protagonists of opposite modes of thought and in them the British and German lines of speculation came into conflict. Green succeeded in supplanting Mill and became the coryphæus of a band of thinkers who drew their inspiration largely from Kant and Hegel. The basis of Green's thought was unquestionably Hegelian, but he was never a mere disciple of the German philosopher. He was a systematic thinker. "There was," says Lord Bryce, "nothing random or scattered in his ideas." All his views, metaphysical, ethical,

political and religious are inter-dependent elements of a comprehensive system of thought. "He was not," says Nettleship, "a mere discoverer of sporadic good ideas; his tendency was to form his conclusions into a whole, in which nothing was isolated or out of relation to the rest."

Green's philosophical ideas are brought out largely through criticisms of Locke, Berkeley, Hume, Spencer, Lewes and Kant. They are also presented in a constructive form in the *Prolegomena to Ethics*, *The Principles of Political Obligation* and some minor essays.

"The lectures on the *Principles of Political Obligation*," as Nettleship says, "form in some degree an illustrative commentary on the *Prolegomena to Ethics*." In this great work on political philosophy Green's object is to inquire into the nature of the moral purpose served by the laws defining the rights and duties of men which the state enforces. The main conclusion reached is that the laws and institutions of society are justified to the extent to which they contribute to the realisation and exercise of the moral capacities of its members. The two principles to be kept in view for the criticism of law are that only outward acts can be matter of obligation and that the standard by which laws are to be judged is the moral end which it should be their aim to further. An act, in order to be moral, must, of course, be done from the best of motives, but it is not the function of the state to look into the motives of men. Its business is to enforce and forbid actions the performance or non-performance of which is necessary to the realisation of the moral end of society. Law can consider only the *intention* of an action. Its ideal is to remove obstacles to and create conditions favourable for the performance of actions directed to the realisation of the moral end. Such actions, however, must be spontaneous and cannot be legally enjoined. No one can be made moral by an act of parliament. Only the external act can be enforced. A merely legal act is not moral, but without being legal or

what ought to be legal, it cannot be moral, unless any breach of law is in the interest of morality itself. The moral good is essentially a common good and it can be realised only in so far as men live a life of mutual helpfulness and co-operation as members of some political society. The duty of the state is to "maintain conditions of life in which morality shall be possible," and the rights of its citizens is to be free not to do what they like but to exercise their powers in order to contribute to the common good. "A right is a power claimed and recognised as contributory to a common good." The rights of men are therefore correlative to their one fundamental duty of seeking to realise the common good and have no existence apart from it. They arise from their membership of the state. "No one can have a right except (1) as a member of society and (2) of a society in which some common good is recognised by the members of the society as their own ideal good, as that which should be for each of them." (*Works, Vol. II, p. 350*). The view, therefore, that men in an unsocial state possessed certain 'natural rights,' for the secure enjoyment of as many of them as possible they entered into a contract to form society is fundamentally erroneous. "Natural right as=right in a state of nature which is not a state of society is a contradiction. There can be no right without a consciousness of common interest on the part of members of a society. Without this there might be certain powers on the part of individuals, but no recognition of these powers by others as powers of which they allow the exercise, nor any claim to such recognition; and without this recognition or claim to recognition there can be no right." (*Works, Vol. II, p. 354*). The result of the notion that individuals had rights in a state of nature "is seen in the inveterate irreverence of the individual towards the state, in the assumption that he has rights against society irrespectively of his fulfilment of any duties to society, that 'all powers that be' are restraints upon his natural freedom

which he may rightly defy as far as he safely can." (*Ibid*, p. 373.)

The state is essentially a product of self-consciousness. In its laws and institutions the collective mind and will of the people is embodied. It is within and as members of it that individuals can recognise and respect each other's rights. These rights are the powers without the exercise of which it is not possible for us to promote the common good. The justification of them is that only through the use of the powers secured in them, man, as a moral being, can fulfil his vocation. As the organs of a living body can discharge the functions necessary for the continuance of life only as constituent elements of it, so, as citizens of the state alone, is it possible for human beings to possess the rights of which the exercise is necessary for the attainment of the moral end. The state, therefore, is the presupposition of the possibility of individuals living as moral beings. It is not a power set over against the individuals whom it controls from without. Man *versus* the state is as absurd a conception as the hand *versus* the body. The state is the organised unity of self-conscious persons apart from which they have neither occupations nor rights.

The answer to the question, why should I submit to the power of the state is, therefore, this that in obeying the laws enforced by the state, I only conform to the necessary conditions of my living the life of a rational being. The institutions by which a man's conduct is regulated express the idea of a common good: in them the general will takes body and form. It is the presence of this idea in him and not fear that makes him acknowledge their authority over him. Will, not force, is the basis of the state. Force, no doubt, is a necessary element of sovereignty. Its use is necessary for the repression of those in whom regard for the common weal is wanting and also, occasionally, for the maintenance of law and order. But it, by itself, is not the bond of society. What is necessary to the existence of a political society is "not indeed that every one

subject to the laws should take part in voting them, still less that he should consent to their application to himself, but that it should represent the idea of common good which each member of society can make his own so far as he is rational."

Political subjection is to be distinguished from that of the slave, because it secures rights to the subject and is based upon his recognition that it is for his own highest good. It and morality have a common source which is "the rational recognition by certain human beings—it may be by children of the same parent—of a common well-being which is their well being and which they conceive as their well-being whether at any moment any one of them is inclined to it or not." Because of this common source both morality and political subjection imply resistance to inclinations opposed to what reason conceives as an adequate good.

But, it may be asked, is it not an unwarrantable assumption that the existence of the state depends on the will of the subjects? Of how many men can it be said that their perception of the fact that the state furthers the common good is the reason of their allegiance to it? Most of us obey the injunctions of the state because we cannot help it. It is true that the abstract idea of a common good does not regulate the conduct of the bulk of men. They are guided by the conventional rules of life and instinctively recognise that the claims which they put forward for themselves are conditional upon their recognition of the similar claims of others. But it is through the discharge of the obligations of daily life that the common good is realised. The knowledge that the conditions of a decent and reputable life are secured to him by the authority of the state is sufficient to make a man loyal to it; but something more, Green thinks, is necessary if he is to be an intelligent patriot as well. He must actively participate in the work of the state and have a hand in making the laws which he obeys.

It cannot be denied that the founders and organisers of states have often been unscrupulous and selfish men and have not hesitated to make use of questionable means to carry out their ends. But they have succeeded not because of their selfishness but through the association of an ideal motive with it. Their individual deficiencies and peculiarities have played but a small part in the result achieved by them. Their success was due to "their fitness to act as organs of impulses and ideas which had previously gained a hold on some society of men and for the realisation of which the means and conditions had been preparing quite apart from the action of those who became the most noticeable instruments of their realisation."

Because a supreme coercive power is essential to the existence of a state, it has been wrongly supposed that it is based on force. The effectiveness of force, however, is due not to its use simply as such, but "according to law written or customary and for the maintenance of rights." The name 'state' is best given to a society which has such a system of law and a supreme power to uphold it. It is not a mere collection of individuals under a sovereign, but an organised whole of men who have a common mind and a common purpose and exercise powers secured to them in furtherance of what is conceived to be a common well-being. It "presupposes other forms of community with the rights that arise out of them and only exists as sustaining, securing and completing them." The development of it takes place through the assimilation of fresh societies and the consequent widening of the range of common interests and the creation of new rights. Force can be said to have contributed to the formation of states only in so far as its use has been necessary for the maintenance of rights.

Rights belong to an individual related to other individuals within the state. They are possessed by them on condition of their recognising each other as free human beings capable of self-realisation. An individual isolated from society, if

such isolation were possible, would have no rights whatever. He can claim to exercise his powers provided that he recognises the like claims of others as members of the same community. "In analysing the nature of any right we may conveniently look at it on two sides and consider it as on the one hand a claim of the individual, arising out of his rational nature to the free exercise of some faculty; on the other hand as a concession of that power by society, a power given by it to the individual of putting the claim in force" (*Works, Vol. II, p. 430*). These, however, are only distinguishable sides of one and the same thing and have no separate existence. "It is only a man's consciousness of having an object in common with others, a wellbeing which is consciously his in being theirs and theirs in being his—only the fact that they are recognised by him and he by them as having this object—that gives them the claim described" (*ibid, p. 450*). No citizen, therefore, has any right to act otherwise than as a member of the state. "The individual has no rights founded on any right to do as he likes."

Are we then to say that opposition to the state is never defensible? Must we always obey its laws, no matter how unjust they may be? The general principle to be borne in mind in answering the question is that nothing should be done which upsets the social order on which the existence of rights depends. An individual who feels that some existing law is unjustifiable must, of course, do all he can to get it amended or repealed by constitutional methods; but, until this is done, his duty is to conform to it. In cases, however, where repeal by legal means is impossible, resistance may sometimes become a duty. But such resistance must be for the sake of the common good which the public conscience can appreciate and never in the interest of any particular section of the community. He who would offer resistance to the state must consider whether, as a consequence of it, there is any prospect of the state being improved without being

subverted and whether its overthrow will mean anarchy. Only in a state so hopelessly bad that its improvement is impossible can rebellion be ever a duty. Nothing calculated to undermine the law-abiding habits of men ought to be light-heartedly undertaken.

Rights depend on the social nature of man. The state "is a form which society takes in order to maintain them." Though there are rights which come into being only with the organisation of the state, all rights are not of this kind. They presuppose society, of course, but may exist in the absence of a state. The right to life and liberty is one of such rights. Its foundation is "capacity on the part of the subject for membership of a society, for determination of the will, and through it of the bodily organisation by the conception of a well-being as common to self with others." This right, though it belongs to man as man, was at first recognised only within the limits of a particular society. Under the influence of the Roman law, Stoicism and the Christian doctrine of the brotherhood of man all arbitrary limitations have been gradually removed and the right of every man to free life recognised. But there is still very little recognition of what it involves. A man is free not to do what he likes but only to fulfil some function in the social organism, to contribute something to the common good. The corollary to the recognition of the right of every human being to life and liberty is to make it possible for him to render service to humanity, to further an end which is as much his as of his fellows.

The right to life and liberty is annulled in war and, for this reason, it is an evil. But war is not murder, of which the essence is to kill with malice against the person killed in order to gain some private advantage. Still it is a violation of the right of life and the promoters of it are wrong-doers to humanity. It may be argued that war is sometimes the only possible means of preserving the integrity and existence of a state, and when this is so, the right to life of its citizens is overridden

by the paramount duty of maintaining the necessary conditions of a good and dignified life. But although the state waging a defensive war may be exculpated from blame, the guilt of it remains and is only transferred to those who are really responsible for it. That such a means of maintaining national freedom should be necessary only shows how low the moral condition of mankind is. Wars arise not because sovereign states exist, but because they are not constituted as they should be. "The state is an institution in which all rights are harmoniously maintained, in which all the capacities that give rise to rights have free play given to them." In so far as a state is true to its end, nothing done by it in its own interests can be antagonistic to the genuine interests of other states. "There is no such thing as an inevitable contest between states." The more states are so organised as to be fitted to fulfil their ends, the greater, as a consequence of this, the connection of men of different nations is with one another, the better is the prospect of the abolition of war. It may be that a spirit of patriotism and self-sacrifice is called forth by war. But "till all the methods have been exhausted by which nature can be brought into the service of men, till society is so organised that every one's capacities have free scope for their development, there is no need to resort to war for a field in which patriotism may display itself."

The right of life and liberty is also infringed by punishment. Its justification depends upon the fact that the right of men to live and work in a community, arising from their capacity to realise themselves by contributing to the social good, needs to be protected against aggression. Punishment, therefore, is retributive in the sense that it is the reaction of society against a wrong done to it through the violation of the rights of its constituent members. But it is also preventive and reformatory. In order to be just, punishment must be for the maintenance of genuine rights and the person punished must know what they are. When these conditions

are fulfilled, it will be seen to be the recoil on the criminal of his own deed. It is also intended to prevent the violation of rights through the association of terror with it in the public mind. The amount of it, however, must be such as is really necessary for the prevention of crime and the system of rights to be maintained must be just. Finally, punishment should, in addition to its retributive and preventive functions, be reformatory as well. By this it is not meant that the state should seek to improve the moral character of the criminal which is beyond its power, but that, as a means to the protection of rights, his recovery from criminal habits should be kept in view. It should not be forgotten that the criminal, except in rare cases, does not become permanently incapable of rights and punishment must be calculated to make him fitted for the resumption of them.

The sacredness of human life is getting increasing recognition. It is generally agreed in these days that man's right to a free life should not be interfered with. The *raison d'être* of this right, however, is the capacity of men to be determined in their actions by the idea of a common good and it is, therefore, not reasonable that so little should be done to make the positive realisation of this capacity possible. But, it being a moral capacity, the development of it cannot be effected by means of legally enforced actions. The end can be achieved only if men act spontaneously under the influence of social interests. All that the state can do is to remove obstacles to the formation of habits of good citizenship. But in this direction it is possible for it to do much more than it has hitherto attempted.

If, as Green says, the state is an organisation whose end is the fullest possible development of its citizens, is it not putting an arbitrary limit to its action to say that it must be only for the purpose of removing obstacles? Much of what would be described as socialistic legislation he defends on the ground that it is necessary for the creation of conditions favourable

for a free moral life, but he opposes "any direct enforcement of the outward conduct, which ought to follow from social interests, by means of threatened penalties." Is the assumption correct that what is legally enforced cannot be spontaneously done? The good man freely fulfils the duties of his station, no matter whether the laws of the state enjoin them or not. So far as he is concerned the element of compulsion does not exist. If a state requires its citizens to serve in the army, it does not follow that they cannot spontaneously and cheerfully render the necessary military service. Law and liberty are not opposed to each other. What is opposed to law is license. Rational laws are the outward embodiment of freedom and in being determined by them an individual is determined by his own inner end. The only proper limit to the action of the state is that which is prescribed by its own end. It is justified in legally enforcing whatever is necessary for the realisation of the capacities of its citizens and not anything else. The truth seems to be that in spite of his being the first British thinker who naturalised in England the political conceptions of Aristotle and Hegel, Green was still too much under the influence of the individualism of his time.

Nevertheless, Green's political theory contains the most effective antidote to individualism. The keynote of it is that individuals and their rights are meaningless abstractions apart from the whole to which they belong. Rights are powers secured to men in order that they may be exercised for the furtherance of a social good. They are the recognised means of doing duty to society. *The one essential right of man, therefore, is to be a good man.* For well nigh a century and a half the world has been hearing only of the rights of man. That they arise out of his duties to his community is the great truth on which Green lays stress. Forgetfulness of this truth results in the "inveterate irreverence of the individual towards the state." The true end of social and political reform is to make the performance of duties through the exercise of

rights easier and not to gain the paradise of rights only and no duties.

With the right of life the right of property is closely connected. Property is the instrument of life and is the outcome of the appropriation of things by a permanent self demanding free expression. That into which a man puts his will becomes his property. Its existence depends upon appropriation and the recognition of that appropriation by others. Men banded together for the furtherance of interests recognised as common, and acknowledging each other as free human beings by means of their activities that contribute to a common well-being become creators of property. It is, therefore, an ethical institution. "As a permanent apparatus for carrying out a plan of life, for expressing ideas of what is beautiful or giving effect to benevolent wishes" its possession is the necessary condition of attaining a moral life. As men have very unequal powers of conquering nature, as their capacities are different, property is bound to be unequal. The difference between rich and poor is, therefore, an irremovable difference and its existence is not a valid reason for abolishing private property. It is only when the freedom to acquire property is so exercised that it interferes with the like freedom of others that it becomes unjustifiable. There is no reason whatever to think that the increased wealth of one man means the diminished wealth of another. As wealth is capable of indefinite increase, it is not necessary that in order to add to one's share of it something should be taken from that of another. The only exception is land. The quantity of it being limited, its exclusive possession by a few may interfere with the right of men to use it for the satisfaction of their wants. The existence of an impoverished proletariat is not due to the institution of property but to various remediable defects connected with its working. It is the duty of the state to see to it that none exercises the right of property in such a way as to create conditions unfavourable for the development of moral personality.

The institution of family life, like the acquisition of property, is due to man's effort to actualise his possibilities. It implies that "in the conception of his own good to which a man seeks to give reality there is included a conception of the well-being of others, connected with him by sexual relations or by relations which arise out of this." The formation of a household is not possible without the free consent of husband and wife to be one person, to merge their isolated personality in a common unity. They, in consequence of this, have reciprocal claims on each other. Marriage, therefore, must be monogamous. The right of husband over wife and of wife over husband is a right against all others. "It is a right to claim a certain behaviour from a certain person and at the same time to exclude all others from claiming it." Monogamy is also necessary if the claims of children on their parents reciprocal to those of the parents on the children are to be satisfied. Domestic training is not possible unless father and mother exercise joint authority over their children and unless the children love and obey them both equally. The ideal of married life is that the partnership of husband and wife should be for life and it should not, therefore, be terminable at the mere pleasure of one of them. While facilitating divorce for adultery, the state should not make dissolution of marriage too easy.

(2)

W. WALLACE.

William Wallace succeeded Green as Whyte's Professor of Moral Philosophy at Oxford in 1882 and exercised profound influence on successive generations of students. His main literary work was the interpretation of Hegel and the translation of his lesser *Logic* and *Philosophy of Mind* into English. If his career had not been cut short in the prime of life by

an unfortunate accident, he would doubtless have made further substantial contributions to philosophy. Except in the incomplete and fragmentary Gifford lectures and some essays on moral philosophy, the views of Wallace are nowhere presented in a positive form. Even the essays, as Caird says, "have a tentative and heuristic character, as of a mind testing different ways of thought and seeking an outlet in one direction after another." The following brief account of his political views is compiled from the essays contained in the posthumous volume edited by Caird and entitled *Lectures and Essays on Natural Theology and Ethics*.

The essay on "our natural rights" gives a very interesting account of the origin and growth of the idea of natural rights and explains the sense in which it is valid. The point of view is substantially the same as that of Green. Wallace shows that one of the most distinguishing features of human life is that it is dominated by the idea of common ends and ideals. "The human being is essentially a social animal; a creature which enters into confederacy with others, which forms groups or unities." The eighteenth century doctrine, therefore, that society is the outcome of a compact made by men possessing natural rights for the safe enjoyment of those rights is absolutely wrong. Man never existed and never can exist independently of society. It is as a unit of a whole alone that he can have his rights. They are powers secured to him by a higher authority to which he is subject. "The mere individual has no rights as such; he has rights only as a person, *i.e.*, as member of a society, as embodying in himself, at least partially, the larger aggregate of which he is a unit." By exercising his rights, a person as "an individual realising the universal" performs a social function, the function namely of contributing in some specific manner to the common good. "Natural rights then are consequences of the fundamental laws of social existence, of those laws which make life in common possible in all countries and all times."

The conditions of social life, of course, vary from country to country and from age to age, but, in the midst of all variations, certain essential forms of association remain constant. "These general features of life never presented abstractly by themselves but always realised in a special type are what give rise to what have been called the absolute or natural rights of man." By natural rights one may also mean the conditions of healthy social life as distinguished from the abnormal deviations from them that take place when society is more or less out of order as, for example, when a particular class thrives at the expense of others. In such circumstances, the demand for natural rights means only a demand for justice and equal opportunities, for the removal of arbitrary restrictions interfering with the free play of personality.

Rights then belong only to an individual who is a member of some social system. They "mark out the place which belongs to each in that system, and are only valid when such a system, economy or constitution prevails." Apart from such a system, an individual is not a person and has no rights. "The basis of his rights lies in the system to which he belongs; and to belong to a system is to perform the functions which are required of him in that system, not merely to be a passive and idle member of it, *fruges consumere natus*."

For all practical purposes, the maximum of social unity is attained in the state. "It may be taken for the supreme society; and up to it all subordinate societies refer; or it finally takes cognisance of all inferior societies, as if they were its delegates and instruments. The state then is the ultimate creator, guardian and guarantee of all rights in this world. It exists by the combined action of its members and exists more or less clearly in the consciousness of each." "The state," Wallace concludes, "must realise that it is mortal god and that in this world it should be ubiquitous and omnipotent."

Organisation of life is the function of the state. The various aspects of human nature, its fundamental impulses and

powers are embodied in and supported by social institutions of different kinds. These institutions require to be so co-ordinated and subordinated in an organised system that "none can claim more than its due share of the individual life, or attempt to cancel the claims of other aspects. To secure this latter condition is the business of the state which seeks to organise social institutions in such a way that it may be an exact reproduction of the whole tendencies of the whole man in their normal hierarchy and system." The state, therefore, is intimately connected with every department of life. Its fundamental purpose is the co-ordination of the various associations of men for the promotion of different interests and ideals without which life would be reduced to a chaos. "The rationally constituted state must be supreme visible organisation of all principles of organisation whatever. With the invisible kingdom of art, science, religion, it cannot, even if it would, deal: in the region of temporalities, *i.e.*, of materialised and tangible existence, the state is supreme—not as a supervening domination but as an indwelling organisation. With art, science, religion, as such, as spiritual principles of human energy, the state has nothing directly to do, but wherever they appear as organisations, wherever they rise into materialised action, there the state is present, not as something alien and antagonistic, but as the whole organisation controlling the eccentricity of the parts."

The state, therefore, is or rather ought to be, a system in which every human being finds appropriate scope for the development of his nature and the satisfaction of his interests. It can be maintained only by its members properly discharging their special functions. "The stock from which each takes what he needs for his private use, he must at the same moment replenish, and replenish with interest as well as principal." The essence of the ethics of socialism is to make the solidarity of human beings the guiding principle of their actions, to demand that the social basis of their life shall not be overlooked

in practice. Although apart from society man is an unreal abstraction, his egoistic and centrifugal tendencies weaken the bond of his union with his fellow beings. To provide motives calculated to resist such tendencies is the merit of socialism. However mistaken its particular aims and policies may be, it is sound in so far as it "keeps the highest common good alive in the several minor or particular associations where particularities are only too likely to harden and ossify."

The constitution of the state, if it is to fulfil its moral purpose, must, Wallace thinks, be democratic. But by democracy he understands something very different from what it is sometimes taken to mean. True democracy is not a community of men bent upon living a soft life of ease and comfort without troubling overmuch about such things as the common good and upon getting the maximum of rights with the minimum of duties, but "the organisation of the total power of a group of human beings in which none is merely a means or instrument of service, but each also enjoys the end of his own and other's action; in which there is fraternity but not necessarily equality or even vulgar liberty, or where the equality lies in common duty of service and the liberty in the removal of all mere passivity." The liberty of doing what one pleases, limited only by the equal liberty of others, the equality of the knave and the fool with the wise and good and the fraternity of sentimentalism and gush find no place in such a scheme of life. On its negative side "democracy is the power and force of the whole body, as against the decided dominance of one or of several classes in the body politic." On the positive side it means "autonomy, self-direction, self organisation. It is not the negation of direction or government, but its completion and universalisation." It is, therefore, the very opposite of mob-rule and anarchy.

GOVERNMENTAL IDEALS IN ANCIENT INDIA

The evolution of Indian social and political institutions was marked by an originality which is so remarkable in the domain of philosophy and thought. The early conception of a social order, on the basis of a division of duties, among the various classes the recognition of the individual and his proper place in the body politic, ethical and moral considerations, as regards the end and aim of human existence, all combined to give a peculiar turn to the development of society and polity, which is not to be found elsewhere.

The state with the ancient Indians never became the 'highest kind of existence, and it was never regarded as the very base' of human existence and progress, the highest form of organisation that can make man attain perfection. With them the state remained a mere means, and never became an end in itself.

The aim of the political organisation was to maintain the social order, to grant protection to life and property and to enable the individual to have his proper way in his self-realisation, as far as the worldly aspect of life was concerned. Thus in one direction the sphere of state action was limited. It embraced only that part of the life of the community which concerned itself with material existence and progress while over the rest it had hardly any control. In religion and thought, the state hardly claimed any authority.

The priesthood, though it had gained an early prominence, had hardly any recognized place in the political organisation. Throughout the length and breadth of the history of Ancient India, ecclesiastical supremacy was never vested in the state or the monarch, and neither were attempts made to establish such a control (if we except the attempt of Aśoka to attain the headship of the Buddhist Church).

Law, too, assumed a character which was directly evolved out of such conceptions. It was something, above society and above the state.

This limited scope of state authority, however, did not reduce it to a police state or a legal state; far from that—in its own sphere of action, the activity of the state was unbounded. Consequently, protection of life and property and the administration of law and justice, were not regarded as the only functions of the state, but we find, some active duties, like the maintenance of the distressed, encouragement to agriculture and the industries, help to those engaged in the study of the sciences, regulation of commerce and of labour, falling within the scope of its proper and legitimate activity.

When we come to enquire as to the presence and development of such a comprehensive theory of governmental action in regard to the material aspect of life, we find its germs even in the remotest period.

Beginning with the very earliest period for which we have definite evidence, we go on with the analysis of the ideals of the three main types of government, *e.g.*, in

I. The Vedic elective monarchy in which the monarchy was dependent upon the will of the people.

II. The social contract monarchy which regarded the ruler and the ruled as the two high contracting parties with duties and responsibilities on both sides.

III. The paternal monarchy which grew out with the decay of popular power and the consequent development of regal authority.

As to the Vedic period, the conception of governmental duties is apparent from the celebrated hymn on royal inauguration according to the rites of the Vājapeya ceremony. The King is invoked as follows:—

इयम् ते राट् । यन्तासि यमनो भुवोऽसि धदधः । ह्ये त्वा चेमाय त्वा,
रये त्वा, पोषाय त्वा ।

[Thus says the priest (on behalf of the people) to the king—Here is thy kingdom; Thou art its ruler (or governor) (नियन्ता) and guide (यमनः—संयमनकर्त्ता)—chastiser). Be steadfast in thy position, and be its (the state's) upholder (धरुषः—धारकः).

Thou art (appointed or called upon?) placed in thy position in order that agriculture may be developed, that the wealth and prosperity of the community may be ensured as well as its proper sustenance, पोषाय—पशुपुत्रादिपुष्ट्यै ।]

Such was the conception of the duties of the head of the state, when his tenure of the regal office entirely depended upon the satisfaction of his people and this he could earn by carrying out the task imposed upon him.

Later on with lapse of time and with attempts at definition of the mutual relations between the ruler and the ruled, this concept of royal duties became the basis of the theory of social contract existing between the monarch and his people. In practically the whole of the literature written under the influence of such a theory, we find, active duties like the grant of royal aid to the distressed, or to those engaged in agriculture and the industries, as included within the scope of governmental functions. The idea of *prati-pālanam* is indeed very comprehensive as would appear from the evidence of the Epic literature. The King is to be held responsible, not only if the people suffered from misgovernment or want of protection but he is to be held equally guilty, if his subjects suffered from hunger and starvation, on account of his inability to find proper means of sustenance for them. Such a ruler was no real king—but was a thief—a Valishad-bhāgataskara (वलिषद्भागतस्करः)—who deserved deposition and even death in the hands of his subjects.¹

Later on as the result of complex social and political developments monarchy gradually gained ground, and from the sixth

¹ Cf. *Mahā-Bhā. Sānti*, Ch. 92; also *Anuśā.*, Ch. 61.

century B.C. onwards, the situation became favourable for the growth of irresponsible governing authority. The great religious movements of the period did much for the emancipation of the minds of the masses from the influence of old teachings and proclaimed the freedom of all to participate in the movements for the uplifting of humanity. But in the process of emancipation, the popular attention was diverted from the arena of politics to that of religion. The cohesion of tribes and clans became loosened; opposition to arbitrary authority became less and less and the ground prepared for Imperialistic authority.

Monarchy changed its character but this change did not disturb or alter the past ideals, as to its duties and functions. Indeed they became more comprehensive. The relation of contract, supposed to subsist between the ruler and the ruled, was supplanted by one of higher moral value, though of less legal import. The king who had become irresponsible, came to be looked upon as the father of his people. This paternal conception is found in many places of contemporary Hindu political literature, where the highest type of kingship is compared to that of the father of the household. We find its influence in the (Epic) Mahabhārata. There in chapter 57 of the *Sāntiparva*, the best king is described as one in whose realm the subjects live happily—move freely as if they were in their father's house.¹ In another place the king is described as the father, mother, and the preceptor of his subjects.² The same idea occurs in chapter 139 of the same parvan which describes a good monarch as the father of his people and

¹ दुना इव पितुर्दृष्टे विषये बल मानवाः :
निर्भवा विप्रविचरन्ति स राजा राजसत्तमः ॥

Sān. 57.38.

² पिता माता सुहृदीति वञ्जयेन्नेवमी बलः ।
सत्तमाच्चो दुषायेत्तान् मनुष्यान् प्रजापतिः ॥

Sān. 139-140.

undue hostility to him is said to be the cause of bringing degradation in after life.¹

Next to the Epic the evidence of the Arthashastra is very interesting. In that work which describes a system of government in which the real governing authority is centralised in the monarch, rulers are called upon to follow a line of conduct, pursued by the father of the household, to further the interest of his children. Thus in the chapter on Janapadanivesa, the king is called upon to give the same encouragement to agriculturists, as a father gives to his children (पितेव चतुष्टयौयात्, p. 47, Ed. I). Again in times of distress, famine or pestilence, the king should take as much care to protect his subjects (*e.g.*, their lives) as a father takes to save his children (सर्व्वे चोपहतान् पितेवातुष्टयौयात्, p. 208). After Kautilya the noblest exponent of the paternal ideal was the Great Emperor Aśoka, whose sacred memory is cherished by admiring posterity, in virtue of his noble and watchful care for his subjects which is so clearly expressed in his memorable edicts. To quote one or two of the innumerable passages, which directly bear upon the subject :—

'Thus sayeth His Majesty in one of his Kalinga edicts':—

"All men are my children and just as I desire for my children that they may enjoy all kinds of prosperity and happiness in both this world and the next so also I desire the same for all men." Such is the spirit of the monarch and he calls upon his officials to make the people believe in him, trust in him and to grasp the truth that "the king to them is even as a father; he loves them as he loves himself and they are to

¹ पिताहि राजा राष्ट्रस्य प्रजानां योऽनुकम्पनः ।

तस्मिन् लिप्ता-विनीतो हि तिर्यग्गच्छति मानवः ॥

Sân. 139-140.

* Cf. Dhanu Edict :

सर्व्वं सुमिदं प्रजा ममा । सर्व्वं प्रजायै प्रहसि इत्थं चिं ति सदीन दित्तसुदीन द्वितीयविषय
पादवीजिवादि बुद्धिभूति.....सुमिदं सु पि प्रहसि इत्थं ।

the king even as his own children.”¹ (V. Smith's *Aśoka*, pp. 77-8.)

So much for the development of the paternal ideal. We now proceed to enumerate some of the principal measures of the Maurya paternal Government to prove the wide scope of governmental action.

All students of the *Arthaśāstra* will hold the opinion that the Government did not concern itself solely with police measures. It gave direct encouragement to agriculture, trade and industries, regulated labour, furthered the cause of education, and maintained those who were without proper means of subsistence.

The cause of agriculture was furthered by grants of land and money to the peasants. (*Artha.*, p. 47, 'Ed. I). Occasionally they were exempted from taxation for a term of years and were granted loans on nominal interest.

Similar concessions were made to those who were engaged in some of the important industries. Those engaged in foreign trade were given concessions and privileges.

Labour, too, was regulated. A series of regulations made it punishable, to attempt to lower the wages of artisans. In cases of disputes between an employer and his servants, state officials seem to have interfered and the dispute was ended by means of a sort of compulsory arbitration.

As to the cause of education, the government gave grants or pensions to those engaged in the teaching of the various *Śāstras*. In the chapter on *Bhṛitya-bharaniyam*, we find mention of grants to such teachers, and to the *adhyokshas* whose main business was to educate the youth of the community. Apart from these the important class of *śrotriyas*, was made

¹ Cf. also Jaugada :

अथा पिता एवं ने भ्राजति—अथ अतानां अनुकंपति द्विं अदिनि अनुकंपति—अथा पत्नी द्विं मये भ्राजति । etc.

exempt from taxation and seems to have received other kinds of assistance from the government.

Next to this encouragement to education the maintenance of the distressed members of the community, was regarded as a part of the governmental duties. The King as head of the community was the natural guardian of the widow, the orphan and the helpless and these were maintained by the state. This recognition of this governmental duty of finding means of subsistence for its subjects is further illustrated by some of the directions of the Arthashastra. Thus in the chapter on the duties of the Superintendent of the Store House we are told that half of the annual produce (collected by the government officials) of the fields should be always kept in reserve to ward off the calamities of the people (ततोऽर्हमापदर्थं जानपदानां स्थापयेत्). These were distributed among the people in times of famine. (Ar. Sa., p. 95). Moreover in times of such calamities, relief works were started, emigration was encouraged, new cereals were cultivated, the hoarded collections of the rich were tapped. (See chapter on calamities, pp. 206-208.)

A consideration of all these points would make many of us lean to the view that the Kautilya Government with its numerous regulations was a form of state socialism, wholly or partly beneficial for the people. Others may complain of over-legislation and the decided tendency to destroy individual effort.

Anyhow these regulations show the gradual development of the Hindu ideal, as to the real functions of the political organisation, which was held responsible for the happiness of the individual, so far as the worldly aspect of his life was concerned.

NARAYANCHANDRA BANERJI

THE EXPRESSION OF NEARNESS

The words expressive of distance and nearness are relative. When we say that a particular village is distant or near, we mean thereby that the village is distant or near in relation to the place where we are. But truly speaking, it is rather the speaker himself than the place originally in relation to which these ideas are expressed. Distance is opposite to nearness, and the former for its expression depends entirely upon the latter. Now, the nearest thing to a speaker is nothing but himself and it is the nearest thing with reference to which one expresses distance or nearness of some other thing. When a man wants to point out himself he invariably puts his hand or fingers not on the head, nor on the feet, nor on any other part of the body, but only on his breast or chest saying 'Here I am.' It is thus the breast with which he identifies himself. Thus it follows from the above that a thing near to one's breast or the middle part of the body is regarded as 'near.' Thus in some of the languages it is seen that the words for chief parts nearest to one's breast are used to mean nearness. Let us take some illustrations :

1. We have in Sanskrit a word क्रीड meaning in Vedic literature the 'breast' or 'chest' and in later Sanskrit the 'lap' (बहु) and from this क्रीड the word कोल is derived through Prakrit in Bengali, Hindi, Panjabi and some other vernaculars of India. कोल in Bengali is used to mean not only the 'lap,' but 'proximity' also, though colloquially in some particular part of the province, as in the following sentence: नदीटा गदिर कोलेर चाहे, *lit.* 'the river is just on the lap of the village,' *fig.* 'the river is in the immediate proximity of the village.' The word in Panjabi, and I think, in some other vernaculars, too, has the same meaning, *i. e.*, 'nearness.'

2. The word पङ्गु (cf. Latin *flax*, Greek *phalkēs*) in Vedic Sanskrit signifies 'a rib,' and the word पाङ्गु which is derived from it (*Nirukta* IV. 3. 2) originally means nothing but the region of the 'ribs,' i. e., two sides of the body. But in classical Sanskrit it has acquired a new meaning, viz., 'the adjacent place.' Thus the sentence, अस्ति वनपाङ्गे कश्चित् पुरुषः means literally 'there is a man on the region of the ribs of the wood,' i. e., on the adjacent land of the wood.' The Pali and Prakrit form of the word पङ्गु is employed also in the sense of 'adjacency.' The following derivatives, too, of the word in different vernaculars have retained the same meaning. Bengali पाङ्ग, Sinhalese पङ्ग, Hindi and Marathi पाङ्ग Gujrati पाङ्ग, etc. The Bengali expression वनर पाङ्गे implies 'in the vicinity of the village'; and so as regards the other vernaculars, too.

3. कण्ठ in Sanskrit originally means 'the neck,' but it has gradually assumed in later Sanskrit the sense of 'proximity' (*Sāstratu*, Poona, 1918, Sl. 489; *Vīṣṇuprakhāṣa*, Benares, Ch. S. S., 1911, p. 41, Sl. 3, correcting संविधाने as अविधाने according to Bhaṭṭajī Dikṣita on Amara, s. v. पाङ्ग). The word उपकण्ठ is well-known in Sanskrit, and so नगरोपकण्ठ means the 'proximity of a town' Gujrati and Marathi कांठ has come from Sanskrit कण्ठ and is used there in the sense of 'side' or 'border' or 'vicinity,' as Gujrati समुद्रकांठाची भाषा 'the language of the (people living on the) side of the sea'; Mar. त्या चोटाच्या कांठी 'on the side of the rivulet.'

4. One of the primary meanings of पङ्कज in Sanskrit is the 'rib,' but पांजर or पांजर which is derived from it in Hindi and several other vernaculars is employed to designate not only the conception of the 'side of the body,' i. e., the region of the ribs, but also of 'nearness.' So of a tree which is very near a village it may be said in Hindi गांवका पांजरमें एक पेड़ है, or in Bengali গাভির পাঁজরায় একটা গাছ আছে.

5. कष in Sanskrit generally means 'the armpit' owing to the fact, most probably, that it is always 'rubbed' (the

root of the word is कृष् 'to rub,' 'scratch' 'scrape,' see *Nirukta* II. 2. 12) by the movements of the arm. Its secondary meaning is पार्श्व 'side' (*Sabdakalpadruma* s. v. कृष्) which has already been explained. Its derivatives in Pali and Prakrit are कक्ख and कक्क. Now, कक्क though in reality a Prakrit word, is freely used in Sanskrit as in the word नदीकक्क which signifies 'the region bordering on a river,' i. e., 'shore.' It seems that originally the word in such cases was used in its derivative sense as shown above; for the land just bordering on a river or a sea is always scraped by its streams or waves (*Nirukta* IV. 18. 2). In the Avesta the same word, i. e., कृष् in the form of कृष्, *kaṣa*, is used to mean 'the shore.' From कक्क we have काह in Bengali meaning 'near,' as for example, घाँস কাহি 'near the village.'

6. The Persian word *baghal* too, means 'the armpit,' and though I am not sure as to whether it signifies 'close by' in that language it is beyond the shade of any doubt that the very word in the form of *bagal* (बगल) in Hindi, Marathi, and Bengali has an additional meaning, i. e., 'side,' 'close by.'

7. It is well-known that Sanskrit हस्त means 'the hand' but हाता which has its origin in the same word is used in different vernaculars, such as Bengali, Hindi, etc., to mean 'an adjoining place' as in Bengali বাড়ীর হাতা 'the adjoining land of the house.' Mark the use in English of the word 'hand' in the phrase 'at hand' which means 'near.'

8. It will be noticed above that the idea of 'side,' too, is expressed by the words for the parts of the body nearest to one's ribs. And here I may add at least one word more. Sanskrit बाहु 'the arm' is *bāzu* both in Avesta and Persian. This *bāzu* through Persian has found its place in vernaculars, such as, Hindi, Gujrati, Marathi, etc., including Bengali and is generally employed to convey the idea of 'side.'

ON A LITTLE SONG BIRD

One summer morn in pensive mood,
I lay beside a gurgling stream,
And heard within the lonesome wood
A song bird sweetly sing.

Her music wafted in the air,
And with the stream harmonious flowed,
Her voice resounded far and near
In cadence soft and loud.

She danced before me on the green,
In ecstasy flew round and round,
Among the flowers sang unseen
And filled them with her sound.

She perched by me and sang so sweet,
I sang with her a lovely song,
My doleful heart merrily beat,
Forgot all woe and wrong :

Forgot its vanished dreams, its moan,
Its blasted hopes, its silent pain,
Forgot its wounds, its dying groan,
Forgot all plaintive strain.

* * * *

My joy was short, away she flew,
My little bird, my heart's delight :
Her lovely music fainter grew,
She vanished out of sight.

I tarried long for her again,
I listened to the sighing air,
Forlorn I sat for her in vain
For e'er in dark despair.

VENGEANCE IS MINE

BOOK II—CHAPTER VIII

FATHER AND DAUGHTER

Gulab had opened the window upstairs and saw what was going on in the garden and called out to her husband—“Just come over here,” she cried, “you have always been praising up your Tanman to the skies for one thing or another. Just look here and what she is doing now. Of course I have always had a bad name where she is concerned.”

“What is it?” cried Harilal going up to the window. He saw two shadowy forms walking together, meeting and parting. One of them ran up to the cottage and came in, the other walked slowly away along the road. Simple-hearted Harilal felt the scales fall from his eyes. He saw his daughter standing on the brink of a precipice. “Is this my Tanman! Is this Jagat!” he thought with fierce anger against them. But his habitual calmness soon returned and turned his anger towards himself for his own folly: “Why did I shut my eyes to this? How came I to be foolish enough to treat a grown-up girl of fifteen as if she were a baby? How far could they have gone?” These and many more such thoughts came crowding into his brain till at last this feeble diseased body and mind felt stunned. At last he sat down on his couch, his hands tightly clasping his head.

“Was I not right? Did I not tell you often enough not to let girls grow up unmarried? But you are a reformer. See where it has led you.”

“This is too much. I cannot understand it yet.”

“But I had understood it long ago. Is there no limit to be set to friendship? But you always stood up for Tanman, and Tanman alone,” exclaimed the step-mother, “if she was my girl I would kill her.”

Harilal knew not what to do. When confidence is abused one naturally feels deeply hurt. Yet still he had a deep affection for Tanman and still his faith in her was unshaken. And when on the top of this Gulab began to play the step-mother, his anger was roused.

"Oh woman! Oh step-mother!" he shouted angrily, "just stop your insinuations. I know very well what I have to do. Now just stop your clatter and go to bed."

They retired. Gulab fell asleep in a few minutes, but Harilal could not. Up to two o'clock he tossed about in bed, thinking and sighing. At last he could bear it no longer. He got up crying, "Alas, my child!" and walking softly so as not to rouse Gulab he went into her room. Tanman was lying on her bed half awake, half dreaming. She had a handkerchief in her hand held close to her lips. It had been Jagat's gift to her and she had worked his name upon it with several strands of her own hair. Harilal stood by her bed. From outside, through the shutters, brilliant streams of silvery moonlight flowed in—Tanman was smiling in her sleep. Harilal's eyes were full of tears. She felt a presence near her even in her sleep and woke up; and as if in continuation of a pleasant dream she cried softly, "Is that you, Kishor?"

Harilal's face became at once clouded over with pain. Tanman opened her eyes and saw her father.

"Why, papa, you here at this time!" She had an inkling of that something extraordinary had happened and quietly slipped the handkerchief into her dress.

Harilal sat down upon her bed. He patted her shoulder affectionately. All his anger against her had evaporated and love had taken its place; for had he not loved and cared for the motherless little girl ever since her infancy? He held Tanman's hand in his own.

"My child," he explained, "I have something to ask you."

"Me? At this time?"

"Yes. I could not sleep," he said, sadly shaking his head, "do you know what you said as you opened your eyes."

"No, father." Tanman felt alarmed: her father surely suspected something. She resolved to speak very cautiously.

"You muttered the name of Jagat."

"Did I? Well, perhaps, since he has left only to-day, there must be some impression left on my mind."

"Tanman, my darling, will you deceive *me*? From your infancy I have never allowed you to feel the want of a mother's love, which you never knew. I have loved you with a double love, I have taught you so long and now in my age, when I am getting old and feeble, will you deceive me?"

If he had shown the slightest trace of anger, Tanman might have been emboldened to make some reply. But she could not bear these earnest words of her father. She crept into her father's arms and clung tight to his shoulders.

"Father, dear, what are you saying? I deceive you?"

"Then tell me truly. What did Jagat tell you?" Fond parents always find others more worthy of blame than their own children.

"Jagat? He did not tell me anything?"

"Tell me the truth, dearest; I saw your parting in the garden."

Tanman's whole heart went out to her father. She felt he must be told everything.

"Father, dear, do not be uncharitable to any one else. I will tell you all, if you will pardon me."

"Tanman, my child, I have never spoken an angry word to you and I will never do so. Your happiness is the one aim of my life.

With her head upon his shoulder to hide her blushes and in a trembling voice she told her father all that he should know. She told him of their childhood's troth and of the promise of their youthful love. How could the just and affectionate father ever blame his child for this? She spoke

the plain unvarnished truth. Though his experience disapproved, he could not help admiring his daughter's conduct.

"But, my child, let bygones be bygones. Now try to forget Jagat."

"My father, do *you* also speak thus? From my childhood you formed my mind with tales of true and loving maidens and wives. And is it now my fault if I follow fearlessly where my ideals lead me?"

"No, dear, it is no fault of yours? But of what use is Jagat's love to you? Can you ever marry him?"

"Why not?"

"My child, he is not of our caste. If it were possible, do you think I would have waited for you to ask me?"

"That is to say, we are to be sacrificed to caste prejudices? Father, you have been a reformer; break the chains."

"How can I at this age! I cannot. But," he added after a few moments' hesitation, "I will think it over. It is not an easy matter."

"What nonsense are you talking? What is there to think over?" cried Gulab bursting into the room. She had been listening from behind the door to the talk of the father and daughter during the last half an hour. She came of an old-fashioned orthodox family. That a girl should play such tricks and that her father should listen to her and should even for a moment think of getting her married outside the caste! Had the old man gone mad? She had rushed in to save the situation. Harilal was staggered; but Tanman raised her head from her father's shoulders and faced her step-mother like a lioness at bay.

"What are you about?" continued Gulab, "have you no thought for the prestige of the family? A little chit talks nonsense and you sit quietly and listen!"

"Don't you be hasty," cried Harilal slowly, but with evident hesitation, "let me just hear what she has got to say."

In truth he was mortally afraid of Gulab's sharp tongue with its "double-ground" edge.

"Oh, certainly; do hear what she has got to say. Is it proper that such little hussies should be allowed to talk in this manner to their elders? Just box her ears and teach her her proper place. Plight her troth, indeed! Let us see what her troth is worth! Just set about it to-morrow and have her married straight away. She will come to her senses soon enough. Kishor, indeed!" Gulab was blazing with rage. Harilal was staggered at this outburst. His calm nature found no words to stem the torrent of her "eloquence." But Tanman was not to be suppressed in this manner.

"Gulab-ba, please curb your sharp tongue. Who wants your advice, when my father is standing by? When I want to marry your cousin I will come and ask you," Tanman's reproof was uttered with dignity. Her lips were firmly set and her big bright eyes were glowing in the moonlight. Among the three bridegrooms and a half alluded to above, the gallant gentleman who had mortgaged his property was Gulab's cousin.

Gulab was white with rage. She sought to overcome Tanman by shouting at her.

"Do you hear this! You have completely spoilt her and so she wags her tongue mightily. She has no shame nor any respect for her elders. A grown-up girl like her with no sense! If your father had been wiser you would have been by now the mother of a family. What have you to do with strange young men? You just wait, I will write immediately to your mother's brother, Shyamdas, and fix up your marriage. Let us see how you dare oppose us. Promised to marry indeed! You take mean advantage of your old father. I shall see how you have 'wedded in your heart' and are 'not going to marry another.' You wretched hussy!"

"Well-done, Gulab-ba! You are proving yourself a perfect step-mother, indeed! I will do exactly as I please and will marry whom I choose. You had better not interfere in my

affairs ;" her lips curled up with contempt as she continued, " let me see how you contrive to get me married. I will be a match for you and others like you. Do your worst. What will uncle Shyamu do? He will kill me at the most. Do what you can, torture me, cut me to pieces but I have been, am and ever will remain my Kishor's. I am his wife before my conscience and my God and if need be I dare lose my life for him. Understand! Let me see how you marry me?"

She was standing erect. Her eyes showed her firm resolve and her contempt for her opponents. She looked like a warrior queen challenging her foes on the field of battle. For a minute all was quiet.

"Tanman, dearest,"—cried Harilal. But even as he was speaking his tongue was, as it were, frozen in his mouth. He screamed and fell down flat upon the floor. He had a second stroke.

CHAPTER IX

WHO SHALL SAVE HER?

Gulab could not swallow the insults hurled at her last night. She at once set about her plan for overcoming Tanman's resolve. The very next day she sent over a man to Surat to fetch Shyamdas.

Tanman's uncle was a remarkable individual. He was a holy terror to the whole caste and whole families were cowed into submission at his mere name. An expert in every variety of bullying, easily first in howling down opposition, a man without any heart and rather thoughtless in his ways—he was able to silence the wisest of the "caste-council"¹ into mild

¹ The council of caste elders, the Panchayat.

submission, because they were afraid of being dishonoured otherwise. So with the help of a rabble following of his own henchmen he was "ruling the roost" in all caste matters. By profession a teacher, he knew no method of teaching but the rod. Whenever occasion arose for a caste-dinner or a tea-party to be given by any member of the school-board he was very useful and so they were glad to continue at public expense the services of such a capable manager for their private entertainments. The mother of Tanman, poor lady, was practically worried by him to an early death. Harilal did not care a bit for him, but he was obliged sometimes to remember their near relationship.

Uncle Shyamu arrived in due course and Gulab entertained him with a detailed narrative of events salted and seasoned for the occasion. His pet aversion was the parent who damaged the eternal Aryan Religion and Custom by allowing daughters to grow up unmarried. And with reason, for when with the same laudable purpose of keeping up the reputation of his family he had married a son of nine to a girl of the advanced age of seven years and six months, all these reformed people had attacked him without mercy. Hearing of the doings of Miss Tanman he was beside himself with pious rage.

Harilal's state was serious after the second stroke. Tanman was with him all the twenty-four hours; she personally saw to his medicine, his food and his rest. Gulab could not distinguish one medicine from another, and so she thought her wifely duty accomplished if she sat on another couch in the room for a few moments every day. About midnight Harilal used to get some sleep and then only Tanman would stretch herself on the floor at the foot of his bed, took out Jagat's handkerchief, kissed it and took some rest.

At first uncle Shyamu found no chance to speak. But one day he found Tanman alone at her dinner and went in.

"Look here, you girl, why are there so many complaints made about you?" he began in a loud voice and with his usual

bullying manner. Tanman was quite prepared for this attack. She had resolved upon her course of action already and was not to be frightened by the shouts and frowns of Uncle Shyamu, nor of all his orthodox kinsfolk put together. She stared quietly at him for a minute before replying.

"Just hold your peace, please. Think of father's illness."

"Oho! As if others have no thought of your father. This sort of dallying won't do in matters of marriage, you understand? Have you ever heard of an old man unmarried or of any woman dying an old maid?"

"Uncle Shyamu, if you have been called by Gulab-ba to bend me into submission, your efforts are in vain. I have told my resolve to my father and to her, and I never will agree to anything else."

"I see," and he bowed with mock humility, "so the young Miss will not take my advice."

"Uncle, I too am of the same stock as you are, and am equally headstrong. I will do just what I have resolved upon."

"Oh, of course!" he replied. But his temper was gone. He tried to frown her out of her resolve and glared savagely at her. But Tanman refused to be frightened. So Shyamdas got up muttering, "that is not the way to bend her."

Tanman was, of course, afraid of what her uncle's visit might presage. She felt certain that he would raise a storm and that she would have to suffer terribly in consequence. That night as she was fanning her father she remembered Jagat. She smiled a little remembering his face, his figure and his voice: she pressed closer his handkerchief concealed in her bosom and murmured softly, "Kishor, my love!" Harilal opened his eyes. He had partially recovered his senses and could understand a little of what was said to him and with great effort could occasionally manage to utter a word. He signed to Tanman with his eyes to come nearer to him and with his frozen tongue articulated the one word "Jagat." She understood and her tears flowed fast. Harilal's eyes also

began to fill. Father and daughter put their heads on the same pillow and fell asleep.

Sometime later Gulab, who had been sleeping on a couch near by, woke up and saw them sleeping thus. "How deep is their affection even in this serious illness!" she muttered to herself and turning over on she fell asleep again immediately.

Four or five days later Harilal felt better. Servants lifted him up into an easy-chair and he could speak a little.

"Tanman, why had Shyamdas come here?"

"To try to bully me. He was invited by Gulab-ba."

Harilal sighed helplessly. He was certain that the step-mother and the uncle would remorselessly sacrifice his handsome girl, so pure in her maidenly innocence.

He was getting weaker and weaker. He could scarce control his own limbs. He looked up and with tears in his eyes implored the mercy of Heaven and mentally gave her over into the protection of God.

Three or four more days passed and uncle Shyamu's letter arrived. Harilal's letters were opened and read by Tanman. She opened it and her heart gave a start to see it spotted over with the auspicious vermilion. She said ;

Surat, the 30th Chaitra, 19...

HONOURED SIR,

We have arranged the marriage of our dear Miss Tanman with Mr. Karamdas Tribhovan of Bomlay. The preliminaries have been settled and an auspicious day for the wedding has been settled as well. It is to be Tuesday, the 12th day of *Vaishakh*. I will have everything ready so that you need not be put to trouble in your present state of health.

Yours obediently,
SHYAMDAS GOBORDHANDAS

Tanman's voice broke while reading this, her tears began to flow. As soon as the letter was finished she burst into passionate tears. "Papa, darling, they are killing me."

Since the last stroke Harilal's powers had entirely left him. Helpless tears flowed from his eyes too. "My dear child, we must trust to God," he sobbed, "but I will break it off, never fear."

But Tanman could plainly see that her father was helpless, that the old man was useless both in body and in mind.

"Father, may I write to Kishor?"

"What use would he be? He, too, is but a child and he would suffer needlessly, Oh God!"

"You are right,"—Tanman saw that no good purpose could be served by writing to Jagat. But what else was she to do? Her sole hope was that her father might get strong enough in the intervening time.

Next day a whole heap of invitation cards arrived. Shyamdas wrote that he had sent the cards to all he could remember and he sent a few to his "honoured brother" to be sent on to others whose names might be remembered even at the last moment. Harilal and Tanman were in utter despair at all this hurry. Gulab did not even care to conceal her triumph.

"I would myself go to Surat and stop Shyamdas. What reason is there for such desperate hurry?" said Harilal. But his doctor forbade him to move for some days yet. There was no help but to stop where he was.

Tanman was getting more and more desperate in her mind. She spent most of her time in tending her father. Her grief found some relief in talking with her father about Jagat. She talked to Harilal as if Jagat was already her wedded husband. She told him all about the quarrel and subsequent reconciliation on the evening of the music party.

"You little rogue! I had no idea you were such an artful person. So you managed to twist even Jagat round your little finger, eh!"

"No, father," she replied with a blush, "I did not torment him on purpose, but goodness knows somehow or other we managed to quarrel pretty often."

"And you made it up again, did you not?" added Harilal,
"just fetch me tha book."

Tanman read the lines he pointed out with his finger :

"And blessings on the falling out.
Which all the more endears,
When we fall out with those we love,
And kiss again with tears."

Tanman's education was good enough to enable her to understand these lines completely. She blushed : that was one of her happy moments.

"Father, all is in your hands."

"My dear, I will do my best."

* * *

The third day they went to Surat.

(To be continued)

KANAIYALAL M. MUNSHI

FIFTY-EIGHT YEARS' FIGHT WITH MALARIA

III

In my last article I referred to the hypothesis of obstructed drainage due to embankments¹ of roads and railways. From the very first it met with a storm of opposition from the experts. It affected the interests of powerful British companies and had the additional disadvantage of having for its chief spokesman an Indian, an Indian too who had not been initiated into the mysteries of either the Medical or the Engineering profession. Though he did not lose any opportunity to urge his views, they had but little weight with the experts. They urged that railways are compelled to provide for sufficient waterways. But Raja Digambar Mitra pointed out, that these waterways "have crossed what appeared to the eye as watercourses; but these are in reality *khals* and other large streams which received the drainage in its flow from the villages over paddyclfields and *bils*," and that numberless runnels through which this flow takes place are so obscure that they present "no visible signs of their being waterways, and could not be known as such unless narrowly watched during the rains." Under these circumstances,

¹ It should be noted that embankments in Bengal are generally bordered by undrained "borrow pits," and that the embankments of canals have the same effect as those of roads and railways. "It seems incredible," observes Sir James Caird, "that for twenty years after the Ganges canal was made, the natural drainage continued in most cases to be blocked by the canal embankment which had been carried across the natural outfalls of the country with no provision of syphons or outlets. The consequence was an accession of fever and the spread of *rel*, both attributed to the canal irrigation where in truth they were the natural consequence of waterlogging the soil by blocking up its outlet. Meerut, it is said, was so desolated by fever that it had to be practically given up as a military station till this want of outlet was discovered, if it had not been for some independent planters, who were not afraid to speak out, the cultivators would have continued to suffer accepting it as a destiny of fate through the ignorance of Government." ("India, the Land and the People," p. 41).

free drainage would necessitate such a large number of bridges and culverts,¹ and such draining of borrow-pits that the construction of railways and feeder roads would be rendered very slow and very expensive. But that would not do. The Railway Companies wanted quick returns for their investments. The Industrial Revolution due to the application of Science to industry had already commenced in the West. Manchester had already begun to manufacture goods on an extensive scale for which markets were required, and a school of economists had sprung up in England who predicted the "Calico-millennium," the "descent of the Angel of Peace in a drapery of Calico." With industrial growth in England, the demand for the food grains and other raw produce of India became more and more clamant. For the expansion of the Jute industry which had just been started in Bengal, large quantities of cheap coal were required. Transport by primitive bullock carts and country boats was too slow and too expensive. So railways must be pushed on. India must be "civilised" in the Western fashion and exploited. I do not know to what extent these considerations weighed with the Government and the engineers. But, as a matter of fact, they generally differed from the Raja. Col. Nicholls, Chief Engineer to the Government of Bengal, reported in 1869 after a special enquiry that "roads and railways have not obstructed the drainage of the country, so far as to cause or aggravate sickness" though he admitted that "some obstruction is inevitable, and should be remedied as far as possible." At a later period, the Drainage Committee of 1906 observed: "We think it more probable, that the construction of these embankments [of railways] may have done injury to health not so much by obstructing the course of drainage, but from the manner in which the earth heaped upon them has been excavated. Pits have been left which are undrained and

¹ Since the above was written, the devastating floods of Northern Bengal have afforded a tragic confirmation of the Raja's Statement.

which become breeding grounds for mosquitoes of much the same character as the hollows surrounding the village sites."

The Drainage Committee in reality confirm the hypothesis of impeded drainage. Had the "borrow-pits" been properly drained they would practically form the "open waterways" recommended by Raja Digambar Mitra and the other members of the Malaria Commission of 1864, and there would be hardly any obstruction to drainage by embankments. We shall return to this subject when we discuss remedial measures. In the meantime it would clear the ground if we examined the more authoritative of the alternative hypotheses which have been urged by medical and engineering experts.

In 1916, in a note on the influence of railway construction on Malaria, Col. W. M. Clemensha who was Sanitary Commissioner with the Government of India at the time observes, "that the results of borrowpits and the blocking of drainage on the health of local inhabitants have been exaggerated," and he "lays special emphasis on the necessity of the control of congregated labour on railway construction and other large public works, and in his opinion outbreaks of Malaria and general unhealthiness of large tracts of country are directly due to deficient sanitary arrangements made during the aggregation of labour and the unsatisfactory conditions under which labour is housed and controlled."¹ There cannot be the shadow of a doubt, that the congregation of labourers during the construction of railways and other large public works is a potential cause of the dissemination of infectious diseases. But the propagation of a virulent type of epidemic Malaria presupposes two factors, the infected human subject, and the Anophelines which suck the blood of such subjects. There must have been an extraordinary accession to the numerical strength of these mosquitoes to explain the violent outbreak of Malaria about 1860. Such accession

¹ Circular No. 1, dated 7th January, 1919, issued by the Hon'ble Mr. H. Sharp, Secretary to the Government of India.

cannot well be accounted for except by supposing an enormous increase in the number of their breeding places. And I do not know how such increase could be explained otherwise than on the hypothesis of obstructed drainage which would convert the borrow-pits by the side of embankments into chains of shallow stagnant pools and puddles. Before 1860, there used to be enormous aggregations of pilgrims at *melās* and of armies and camp-followers, during Muslim Rule, at various places in Bengal and elsewhere probably outnumbering any labour force collected during the construction of a railway or any other large public works. But the evil effects of such aggregations were never permanent. They certainly never resulted in such a terrible outburst of epidemic malaria as that of 1860.

Sir Bradford Leslie of Railway fame has recently broached a hypothesis which but for his high reputation would hardly deserve any notice. In a letter published in the *Statesman* newspaper (Dak Edition, Nov. 24, 1921), he contests the view "that before railways were introduced into Central and Western Bengal, malaria was relatively a mild disease," and says that when he came to Bengal in 1858 he found malaria rife in parts of Central Bengal. This is not surprising, as by that time parts of the East Indian and the Eastern Bengal Railway and numbers of raised high roads had been constructed. He apparently accepts the view recently urged with great emphasis by Dr. Bentley, Director of Public Health, Bengal, that the loss of the floodspill of the Ganges was the most potent factor in the genesis of epidemic malaria in Bengal. We shall discuss this hypothesis later on. But the most important cause assigned by Sir Bradford Leslie for this stoppage of the floodspill of the Ganges does not appear to us to be at all warranted by facts. "The first and chief cause," he says, "as I have repeatedly explained, occurred some ninety years ago, long before the introduction of railway embankments, when the Brahmaputra

deserting its former course eastward of Dacca swung over to the west into the bed of the Teesta and Jenai rivers past Jaffergunge.....Since the date of this geographic convulsion all the Nuddeah rivers, more or less deprived of Ganges flood-spill have been moribund."

This "geographic convulsion" occurred not ninety, but about one hundred and thirty years ago, and the Brahmaputra swung over to the bed of the Jenai (Jabuna) only. So far as the Tista is concerned, before 1787 it used to flow, joined with the Atrai, into the Ganges above the Goalundo. But in that year owing to an exceptionally heavy flood, it brought down such a large quantity of timber from the Himalayas that a dam was formed at its junction with the Atrai, and it cut its present channel. As a matter of fact, as was, I believe first shown by Fergusson in a very able and comprehensive paper in the *Quarterly Journal of the Geological Society* (1863), the recession of the Brahmaputra westward was beneficial to the rivers of Lower Bengal. The floodspill of the Ganges (Padma) coming from the West opposed by that of the Brahmaputra (old Janai or Jabuna) from the north found an outlet in the Gorai (a moribund river at the time) which joined with the Barasia expanded a *khal* named Elankali, and ultimately found its way into the Madhumati the volume of which was considerably augmented.¹ The recession of the Brahmaputra westward must have led to a certain amount of silting up of its old channel and of its effluents in the district of Mymensing. If it were a primary cause of the virulent widespread type of malaria, it should have broken out there long ago. But on the contrary. Mymensing is one of the least malarious districts of Bengal. It does not appear to us to be at all consonant with reason to make the change in the course of the Brahmaputra responsible for

¹ The Matobhanga (Churni), which is a new river, may have owed its origin to the same cause.

the sudden malarial outburst in the districts of Twenty-four Pargannas, Burdwan, Hooghly and Nadia about 1860, so far from the principal area of its operations and so long after the event.

Col. F. C. Hirst of the Survey of India has advanced a hypothesis¹ which is more plausible than that of Sir Bradford Leslie. He too holds that the primary cause of the unhealthiness of Central Bengal is its deprivation of the flood-waters of the Ganges, but he more reasonably ascribes this deprivation to the change of the main channel of that river from the Bhagirathi to the Padma. That it affected health seriously is unquestionable, as it gradually reduced such rivers as the Jamuna and the Saraswati, which branched off from the Bhagirathi (Hooghly) from near Tribeni, to a more or less moribund condition. But it could not be the principal cause of the virulent type of the epidemic which broke out about 1860. The data for fixing the date of this change even approximately are very unsatisfactory. There can be hardly any doubt, that the Bhagirathi was formerly the main channel of the Ganges. It is called after Bhagirath who, according to tradition, is said to have brought that river down from the Himalayas, and the present main channel in Bengal, the Padma (or Padmavati) is not invested by the Hindus with the sanctity which is attached to it. The change must have taken place before the middle of the seventeenth century, for the Padma was well established before the Brahmaputra with the Jahuna (Jenai) joined it near Goalundo about the close of that century. There is indirect evidence, though not of a very satisfactory character, which carries the date of the change a century earlier. During the reign of Akbar the Jamuna and the Sarasvati which branched off from the Bhagirathi at Tribeni were two large and consequential rivers.²

¹ *The Statesman*, Jan. 18, 1922.

² *Ain-i-Akbari*—Sulah of Bengal.

But in a map dated 1660, the Jamuna is shown as quite an insignificant river. This diminution of its volume may not unreasonably be ascribed to the diminution of the volume of the parent river due to the change mentioned above. It may thus be conjecturally concluded to have occurred about the middle of the seventeenth century. Col. Hirst in a letter which he has been so good as to write to me expresses the opinion that the deflection occurred quite three hundred years ago. Now, the chief effect of this change, so far as malaria is concerned, would be to gradually reduce the rivers dependent for their supply upon the Bhagirathi to a more or less moribund condition and thus add to the swamps of Lower Bengal. To what extent malarial fever there was increased by this circumstance it is now impossible to tell. But as we have seen in our first article it enjoyed fairly good health in pre-railway times. It would be a severe tax on one's credulity to be told to ascribe the virulent widespread malarial outbreak of post-railway times to a cause which had been set into motion some two centuries previously. One can understand that as marshy conditions increased with the attenuation of a river, people living close to it should suffer more or less in health, but that they should all on a sudden have developed such sinister and such peculiar potency as to make their noxious effects felt so severely and so widely even by people remote from their influence passes one's comprehension.

Col. Hirst says: "That embankments in Bengal have been a contributory cause I firmly believe." We are strongly inclined to think, that the "contributory" cause was the immediate and the more potent cause. Raja Digambar Mitra cited several cases in which people living near silted up rivers did not seriously suffer in health until roads inadequately provided with waterways were constructed.¹ The truth is,

¹ Some of these cases are quoted in the writer's work on "Survival of Hindu Civilization, Part 2, Physical Degeneration, its Causes and Remedies," pp. 107-108.

that the roads and railways which suddenly sprang up about 1860 intensified the marshy conditions favourable for malaria incomparably more seriously than silted up rivers, and what is worse, brought them near the homes of the villagers.

(To be continued)

PRAMATHANATH BOSE

ADORATION

In the temple of my soul, O love,
I have enthroned thee,
The idol that lifts me above
Unto eternity.

Upon the altar of my heart
A fire burns for thee,
Thereon I offer thee each part
Of my whole being free.

In the deep censer of my mind
I have incense for thee,
My tend'rest thoughts around thee wind
In wreaths unceasingly.

In the temple of my soul, O love,
I sit adoring thee,
A worship that lifts me above
Unto eternity.

V. B.

WITHERED LEAVES

Time takes them home that we loved, fair names and famous,
To the soft long sleep, to the broad sweet bosom of death.
But the flower of their souls he shall not take away to shame us,
Nor the lips lack song for ever that now lack breath.
For with us shall the music and perfume that die not dwell,
Though the dead to our dead bid welcome, and we farewell.

SWINBURNE.

In the modest collection of my books there is one I fondly cherish. It is a Persian MS—neatly and elegantly written by a very dear friend of mine—cut off in the prime of life by the hand of death. It is entitled “Withered Leaves”—a name suggestive of its contents. It is my friend’s *Reminiscences*. I would be nearer the truth were I to describe it as his *Autobiography*, interspersed with shrewd and sagacious criticisms on life and letters; thoughtful judgments on contemporary events; life-like portraits of public and private personalities. It is an entirely human document—bright, vivid, alternating with light and shade. For is not life a strange compound of joy and sorrow, light and darkness, success and disappointments? The MS was made over to me by my friend’s executors—a month after the grave had closed upon him. Here is a copy of the covering letter—the last that my friend penned. “To you I make over this MS, with full liberty to publish it *in extenso* or in parts, to keep it back for the present, or to destroy it for ever more. It is placed in your hands, with full power to deal with it as you please. You have known me as no one else has known me on this earth, and you are by far the best judge of its contents. There is no accent of untruth, no affectation, no make-believe in these pages. It is a correct, ungarbled report of my thoughts, my

feelings, my activities. I have set them down, not because I have flattered myself into the belief that they were worthy of enduring record, but because it helped me in beguiling the tedium of my weary, cheerless existence. Should you think that they are likely to interest others—withdraw not that pleasure from them. But *you* are the sole judge, and your judgment is final, without appeal. I have nothing more to add. Farewell! The Night cometh, and I hear a Voice calling me hence."

This little note—so unaffected in its simplicity, so touching in its directness—at once awoke in me a long train of melancholy thoughts.

"I wept as I remembered how often he and I had tired the Sun with talking and sent him down the sky."

The past unrolled itself before my mental vision.

A bird bills the selfsame song,
With never a fault in its flow,
That we listened to here those long
Long years ago.

—But it's not the selfsame bird—
No! perished to dust is he...
As also are those who heard
That song with me.

I recalled my first meeting with him, many many years ago, in a *moffussil* school-room. The whole scene seemed—as fresh as though it were but of yesterday. I remembered him sitting next to me in the class—a shy, sensitive child, keen eyed and alert in mind, and with a grace and gentleness at once singular and striking. We were friends before we parted at the end of the first day. There our life-long friendship began. We became inseparables, and so unto the end we remained.

It was a delightful companionship. The Ganges flowed by the school compound, and it was our unfailing joy to sit on its bank and watch the silvery stream, the sapphire sky, the soft-gliding sailing boats, the setting sun, the descending darkness, the unbroken peace and quiet, and the solemn silence softening, soothing, pervading all. For hours we sat there—happy, speechless—banqueting on nature's pure delights. Our whole school-life was one unclouded dream. Mornings were spent in preparing lessons; day at the school; afternoons and evenings in contemplation of nature, and after dusk at the Library. After sundown my father invariably retired there, and we children followed him. It was a sanctuary of Erudition. Books, discussions on books, and learned talk enlivened with poetical quotations, were the usual fare. This was the uninterrupted, never varied routine, from one end of the year to the other.

Stupendous was my friend's memory, and before he left school it was richly stored with poetical quotations from the earliest to the most modern of the Persian Poets. In after life his conversation was a brilliant literary feast. Fine, chiselled sentences flowed in swift succession—natural, effortless, unstudied. Choice anecdotes, appropriate quotations, ironic touches, wit, humour, levity, learning : all these flashed, sparkled, shone—holding the audience thrilled and spell-bound.

The MS before me is itself proof of his finished scholarship in Persian, and his wide reading in European, literature. School days having ended, he came to Calcutta to prosecute his studies. His devotion to the City of Palaces was almost romantic. It was always a wrench for him to leave it, even for a day. Poor soul ! What agony did he suffer ! What grief and torture during his self-imposed exile for a year from this superb city. If Calcutta yielded to any city in his esteem and love, it was to Oxford—his beloved University which he never could love too well. Let us hear his

own words: "Calcutta", says he, "was the scene of my happy College days, when no cloud marred life's horizon and no storm ruffled life's placidity. Not College days alone! Here, too, on my return from Europe, I nursed golden dreams which have receded and faded with the march of time. Ah, but here too, I have snatched many a moment of unalloyed joy from annihilation's waste! Here, too, I have forged romantic friendships, which sweetened and lightened life's weary path. Here, too, I have struggled and fought against heavy odds, with but occasional gleams of victory—only gleams—for victory, clear, conclusive, complete, has never been my lot, never a prize within my grasp. Woven are here the associations of childhood, manhood, declining age; and dear, thrice dear, is their memory to me. To one city only—far-famed, aglow with light, crowned with the diadem of learning, steeped in hoary traditions, linked with heart-stirring romances—thou yieldest in my love and esteem. It is Oxford—that supremely glorious city—which I have so often longed with a yearning, passionate longing to revisit. Oft have I wondered whether it would ever be my lot to walk again within its sacred precincts; to see with the eyes of old age those haunts where youth and joy and love never for one instant betrayed, deserted, parted company with each other. For seven ecstatic years Oxford was my fondly-adored home. Straightway I fell in love with its classic atmosphere, its learned surroundings, its leisured air, its striking liberalism, its wondrous opportunities for culture and refinement, its unfailing hospitality, its ineffable charm. I threw myself unreservedly into the arms of that universally beloved city of Minerva, where light and learning, happily wedded, hold unquestioned sway. Of learning I could not have enough. Who ever can? It is a passion which grows and grows, more and more. Time, which wrecks all, leaves this unwrecked. It defies time and age, and rises triumphant over them both. But, ah! Oxford not only opened the door of

Learning to me and guided me into its many-chambered palace: it also introduced me—youthful, inexperienced—to that Sovereign Lady—the presiding *déesse* of youth, the controlling mistress of manhood, the consoling companion of old Age—Love.

What a sweet, sad thing is love—especially Love at first sight! Who can describe its joy and its pain? It is a crisis of the soul. I shall not attempt a description of those tense days and sleepless nights when hope waxed and waned; when laughter and tears held alternate sway over my heart; when life was either beautiful sunshine or a weeping gloom. My ineffable and sublime! Heaven was on her lips, and joy in her eyes. In those long summer evenings, in surroundings fair and poetical, we met and walked and talked: and unceasing was our talk—for lovers' talk never hath an end. Even now—so vivid is my recollection—I remember the anxiety with which I scanned the sky and nervously watched the clouds, lest the unexpected rain might rob me of my walk and the soul-entrancing talk. Happy, gloriously happy, were those days when love was young, and hope was bright, and life was seen through the lens of supreme enticing joy. It was a world far from ours, alas! where music and moonlight and feeling were one inseparable whole. Two-fold, then, was Oxford's gift to me, no temporary, but an enduring, gift: Love and Learning—Sweetness and Light."

I have given but a fragment of the story of my friend's Oxford life and Romance. It may aptly be described as a page torn from the Arabian Nights. Some day the entire text and translation may be given to the world: and, I am confident, it will not be an unwelcome addition to the library of serious literature. This little Persian MS. is rich in thought, rich in romance, rich in criticisms on life and letters.

Its perusal revived in me many distant and faded memories; stirred up old dreams; recalled old hopes and fears: for he and I were bosom friends. No human eye—except his

or mine—has scanned these leaves, and no human hand—other than ours—has turned its pages. It is a sacred legacy to me and in that light I have always looked upon it and dealt with it.

Never, to my knowledge, was any one more misunderstood than he. His gay talk, his ringing laughter, his easy manners, absence of all restraint, and freedom from all reservations, were not infrequently mistaken for a want of seriousness. But nothing could be further from the truth. His writings, which are numerous, are all and without exception serious, indeed sad. His outward gaiety was but a means of escape and shelter from his brooding melancholy. In spite of company—in spite of mirth and merriment—he was intensely lonely, intensely sad at heart. What made him so? Life and the view that he took of life. He looked upon it as a growing renunciation; a continuing disenchantment; a funeral procession of hope, of love, of ambition, of all that is dear and near to one's heart. He faced the realities of life, faced them without fear. And what is pessimism, but facing the realities of life? He was steeped in melancholy, and was always deep in gloomy thoughts. Verily, did he seem to revel in the *Luxury of Woe*! Out of his library, however, he ever strove to shake himself free from this empire of gloom and to rid himself of this haunting melancholy. Hence the contrast between his depressing writings and his sunny talk.

Here is a passage to the point: "Know thyself. This was one of the Socratic maxims of life, and how true and wise it was. Man not only deceives others: he deceives himself too. He wears a mask, not only for the outer world, but also for the exacting world within himself. He exaggerates his powers. He miscalculates his strength. He overrates his virtues, and ignores his vices. If successful, he fancies himself the greatest of God's creation; and if unsuccessful, the most injured of mortals. True appreciation of self, realisation of one's limitations, candid admission of failure, cheerful acceptance

of facts, charity, forgiveness—how rare in life! Know thyself! How difficult the task! And infinitely more difficult to know others! And yet fluent and facile and swift are we in judging and condemning others! Should Mercy, the twin-born of Justice—should Mercy, with Justice, be dethroned, dishonoured, expelled from the world's judgment seat? I shudder to think it; but facts, indubitable facts, point thereto."

And again: "One thing I have always cheerfully followed and loyally obeyed—the directions of my heart. I have never been at pains to consult, or to defer to, the wishes of others. My heart has been my one, constant guide. To its promptings I have invariably hearkened. Its commands I have never disobeyed. For why should I stifle its yearning, or crush its cravings? No one lives twice, outliving his day. Dear heart! thou art the custodian of my joys and sorrows—my unceasing companion by day and night: my kindly light unto death."

The MS. begins thus: "The Goddess of Learning blessed my cradle, and the good fairies brought to me their varied gifts. But rich and rare, though these gifts were, the supremest of all—success in life—they forgot to bring and to bestow upon me. And hence success has never attended my efforts—strive as I will. I have always seen hope dangle before me, but its fulfilment never. Dreams have floated before my vision—golden, glittering, beckoning dreams but the dawning day has always chased them away—out of reach, out of sight. I am a cenotaph of frustrated hopes and wasted destinies. In my younger days I was wont to chafe, repine, silently grieve: but all that is past and over now. I have made peace with fate, and have accepted *Resignation* and *Renunciation* as the two cardinal tenets of my faith. And they have given me peace, contentment, serenity, strength, fortitude, courage. Disappointment has now no longer any significance for me; success no meaning either. Life to me is an endless succession

of metamorphoses leading up to that final terrestrial change—misnamed death. For is not death but a portal, a tempering process, through which we must needs pass on our way to Perfection's goal?

‘ Let me enjoy the world no less
Because the all-Enacting Might
The fashioned forth its loveliness
Had other aims than my delight. ’ ”

This is a fine passage, in complete accordance with my own views, and, I doubt not, with the views of many others who have gone through life with their eyes open and ears not shut. Do we not find the same sentiments echoing through the ages in our eastern literature? *Panilas Panitatum!* Death and Dust! Perchance a purer, happier life beyond! Hope! Why should we forsake hope? Is not hope a relief, a consolation, a rock in the sea of uncertainty? I rejoice that there was at least this little ray of light which illumed and cheered our author's path. But ah! are there not millions on this fair earth to whom even *hope* is a mockery in their life of perpetual warfare with adverse fate? What about these weary toilers of the earth? One lesson life continually brings home to me:—"Envy not others: for many many are envious of thee." And if we were to look upon life in this spirit—much of our imagined misery would vanish, and a great deal of real misery would soften, abate, and lose its bitterness. To me the temptation of quoting from this MS. is almost irresistible. Thackeray has somewhere said: I hope I shall always like to hear men, in reason, talk about themselves. What subject does a man know better? And here it is not only a man in reason, but a man lavishly endowed by nature, and rich with all the gifts of civilization.

Here is a purely personal passage—refreshing in its candour and frankness.

"Youth and its generous uncalculating ardour! Ah, how memory turns to those days of untarnished joy! 'Restore, O God, the dreams of youth, and fulfil a tithe of them.' Often and often I sat with my father, surrounded by books, unfolding to him schemes of future activity. I spoke of my design to attempt a 'History of Islam,' and he encouraged me in my ambition. He stimulated my passion for study, and loved to dwell upon the true student's ideal, which scorned delights and lived laborious days. I was provided with books—for there never was any scarcity of books at home—and in my hours of freedom my favourite resort was our library. I read with a consuming passion, and heard literary subjects discussed with unslaked curiosity. Fresh from an Indian College to an English University, I breathed there the very atmosphere of learning. I enjoyed the society of the most cultivated and talented of men. There, in that congenial company, hope soared higher and yet higher, and ambition kept pace with hope. I determined to carry out my boyish resolution; and, with that end in view, I set about to equip myself for the task. I read history. I studied it under that sweetest and kindest of teachers—alas! now, no more—Mr. T. A. Archer—familiar to all students of mediæval lore. It was more than a tutor's interest that he took in me. Not only did he help me on in my studies with generous unstinted help. He prepared me fully for the task to which I proposed to address myself; namely, the authorship of an *Islamic History*. Original research he regarded, and insisted upon, as an integral part of University education. He argued that a student should not only keep himself abreast of current scholarship, but should go to the very fountain-head—original sources. For only thus can he receive the proper training and the necessary discipline for sound historical work in after-life. The study of original authorities, he contended, was of incalculable service, and its neglect of catastrophic consequence to the student.

It called forth, said he, all the necessary qualifications needed for historical work : discretion, judgment, method. It taught the art of seizing upon the essentials in the overwhelming abundance of details. It quickened the intellect ; it ensured self-confidence ; it formed and matured style. In short, it brought critical powers into full play. Above all, he held that we should not be content merely to restate the ideas of others. We should have ideas of our own. Under his loving guidance I passed through all this training and made myself ready for the task. But disappointment has ever dogged my footsteps. The entrancing dream that I so proudly nursed vanished with my Oxford days. I was flung into the vortex of life—not to edify the world with historical studies, but to keep body and soul together in a mere heart-breaking, soul-deadening struggle for existence. Farewell to thee—O happy dream—now, mine, no more. Were I a Christian, were I without those duties and obligations which chain me to mother-earth, I would have retired to a monastery to pursue my studies, to fulfil my destiny. For whatever it is not—the monastic life is certainly a haven of calm to those who shrink from the pollutions and perils of the civil state, and its transient joy. But *even that* is not to be. Hence these tears ! Unbidden they flow. Cease, O tears, for never will ye deflect Fate from its destined course, or vary its decree.”

Let me now pass on to his religious views, which were not only free from bias and taint of prejudice, but were marked with generous liberalism. He could not understand that spirit of antagonism which one religion displays towards another ; nor could he endure, for an instant, malice, hatred, ill-will, disfiguring the relationship which ought to subsist between the professors of differing religions.

“ Religion, said he, is a purely personal matter between man and his Creator. It is too lofty and sacred to be dragged into the forum and the market-place. The human heart

is its temple ; human gratitude, its prayer ; love, its binding tie ; and good-will towards all its fairest flower and fruit.

And is it not, after all, the very same goal that all religions seek—to announce to the sunk, self-weary man—Thou must be born again ! Why then this wrangle ? Why this ever-recurring struggle and bloodshed which wrecks God's peace and brings Satan's sway on earth." ?

" He prayeth best, who loveth best
All things both great and small ;
For the dear God who loveth us
He made and loveth all."

Though he always disclaimed acquaintance with Politics and never, to my knowledge, took any part in it, yet his views were sound, and showed signs of careful thought. When I say he did not take part in Politics—I mean active part ; for instance, he joined no meeting, wore no colours, belonged to no party, and espoused no cause. I do not, for one moment, suggest that he was not seriously interested in his country's weal or in his country's future. In fact he was keenly, vitally interested. I always heard him say, and say with emphasis, that popular will, clearly, freely, continually expressed, was the one and the only safe-guard in Politics ; nay, the only means of securing and attaining permanence for politics and promoting good in any people with any chance or hope of lasting success. But popular will, said he, was not popular caprice—no mere passing whim, or epidemic of unreason—but *will* formed, forged, founded on an intelligent appreciation of the problems of statesmanship, and serious considerations of the pressing problems of the day. It needs training, and training needs time. He found a visionary spirit and a feeling of impatience in his countrymen. They were far too prone, thought he, to measures, ill-considered, premature, over-hasty. "Unstable as water thou

shalt not excel! Faith, perseverance, courage, eye steadfastly set towards the goal, neither fleeting triumph elating, nor momentary reverses depressing, the spirits—these are the qualities which make for success, in private no less than in public life. And are these not the very qualities which we so singularly lack? Impatience! Can you build up a nationality in a decade or two? Is it not the silent work of many centuries—the resultant of countless causes co-operating with each other through the ages? This feeling of impatience, this spirit of the visionary, he contended, was fraught with fatal consequences. It will stir hopes foredoomed to failure; and failure will leave our countrymen broken, bruised, crushed, incapable of effort, bereft of sunshine, plunged in depression. Progress—sure and secure—is ever slow and cautious. History inculcates this truth, and we must loyally and wholeheartedly accept it. India is astir with new life; aflame with lofty aspirations. We see clouds on the horizon, and hear, as it were, mutterings of a distant storm. But I doubt not that the clouds and the storm will pass away, leaving an atmosphere clearer, a horizon serener, prospects brighter, ties more strengthened, and loves more closely-knitted together than before. May India's be the conception of Truth as an end to be pursued for its own sake—a conception essentially allied with freedom, and opposed alike to *anarchy* and to *blind obedience*."

In another place he says; "I love to watch the game of Politics from my study window. There, in a tranquil atmosphere, I see things in their true aspect, their correct proportions. No warmth of partisanship; no blinding light of self-interest either. I watch as a distant spectator, a student of history. It is a wondrous game—this game of Politics. Often and often personal ambition masquerades in the spotless robe of purity, and gross personal interest stalks abroad in the charming disguise of self-effacing patriotism. I have known many of the chief actors in the scene. I have seen them

bedeck and bejewel themselves before making their *début* on the stage. I have seen them without rouge and powder. I have seen them as they really are. I have known the springs of their action—their secret motives, their appalling disguises. I have discerned their *character*, as distinguished from their *reputation*. Confiding Public—too simple and trustful to probe beneath the surface of things! What sports you are of cunning, of falsity, of faithlessness.”

The MS. abounds in wise reflections. The author knew what he was talking about, and time has added force and weight to his observations. I shall risk one more quotation. “Who will dare deny the gifts which English rule has conferred on India? To the English India owes its political awakening; its intellectual advancement; its commercial progress, its ordered government and Rule of Law. Rich gifts are these, and eternal be our thanks to the givers. But the entire work of the Englishman in the East is spoiled by his social aloofness and racial pride. This might have had its uses when he was regarded—as undoubtedly he was some thirty years ago—as a heaven-sent messenger to set the ruined world right and to bring good things to the world so set right. The divinity, that hedged him then, enhanced his importance, strengthened his prestige, and made him a ruler unquestioned. But thirty years have brought fierce assaults upon his divinity. The laurel, the palm, and the paeon are not *exclusively* his. Indians have been to Europe, competed with him in open competition, worked with him side by side, shouldered the burden of Government with him, seen him at close quarters at home and abroad. The glamour is gone. The vaunted superiority is no longer an unchallenged fact. The quondam Gods have descended from their mists and clouds to mix with mortals of ordinary clay. And the discovery—that the quondam Gods are but men of like passions with ourselves—has dissolved the spell which held Indians in thrall—and has dissolved it for evermore. Prestige

stands now no longer, as it did in days of yore, in undimmed splendour. Times change and we must change with Time. Compromise! Is not compromise an unerring guide that holds aloft the torch showing the true path to peace and salvation?"

It seems as though he had lifted the veil of futurity and clearly seen what was in store. Curious forebodings of events which, within recent times, have stirred India to its depths! His criticisms are apt, just, penetrating. They are an instructive commentary on the happenings of the last three or four years. Want of training, want of discipline, want of calculation and forethought, impatience, haste, rashness, blunder, palpable and egregious—are these not the dominant features of the political movements of our times? But, to be sure, they have not been altogether without good results. They mark a step forward in the political march. They have vindicated—beyond all cavil and doubt—the capacity of the Indians for wide effective organisation and whole-hearted co-operation. They have wiped away the reproach (if ever such a reproach was just) that the Indians were not bold and fearless—ready to face pillory, prison, gallows for their political faith and political ideals. They have acclaimed and established that ideas are stronger, more enduring than the sword. And they have borne splendid testimony to the truth, undisputed and indisputable historic truth, that no Government, however powerful, can resist the unanimous demand or set its face against the unanimous will of a really developed people. "Our entire work in the East," says the *Nation* and the *Athenæum*, "is at stake. We cannot save it by resistance and repression, nor yet by a surrender after repression, as in Ireland. We can, we believe, save it by an *honourable pact loyally observed*" (March 18th, 1922 p. 885.) Sir Valentine Chirol's letter to the *Times* is also instructive reading on this point. (Mail, Wednesday, September, 20th 1922 p. 599).

I have not referred to the illuminating literary criticisms which are so plentiful in this MS., nor have I given any extract from those vivid and charming contemporary portraits which enliven and lighten its otherwise serious pages. Considerations of space forbid extensive extracts or exhaustive quotations. But to pass them completely over would be painful to me and perhaps disappointing to my readers.

In his portrait gallery we meet in masks almost all the prominent men of his day, but in easily recognisable masks. We encounter Mr. Chameleon, Mr. Vainglory, Mr. Inordinate Vanity, Mr. Free Hobnob, Mr. Keep-off-the-Grass, Mr. Busy-with-nothing, Professor Never-Smile, Principal Dreamer, and last but not least the learned Dr. Bulbulla Samarqandi, and we encounter them just as we would encounter them in life. Perfect is the portrait of the Doctor—fine, flawless.

“Dr. Bulbulla Samarqandi was a rare human curio, of a unique type. Nature, after fashioning him, destroyed the mould. And nature was unerring in its instinct. Imagine this small world of ours with two such men! The thought is inconceivable—terrible. The world's strife—already bitter and venomous—would have been a thousand-fold intensified, and the chaos, threatening to engulf us all, would long ago have enveloped us in its impenetrable gloom.

The dominant trait of the Doctor was jealousy, and it ruled him with a fierce, frenzied rule. He was jealous of the sun because it illumined the world; he was jealous of the moon because it bathed the lovers in love and romance; he was jealous of a perambulating child because some day it might rival or outshine him; he was jealous of his friends because they might dispute his supremacy in his exclusively own kingdom of *humbuggism*; and malevolent whispers suggest that he was even jealous of his very dear parents because they brought forth so peerless a son. Poor Doctor! victim of jealousy so absorbing, so complete.

"His religion sat very lightly on him. He would hug Islam if it led him to the path of glory or of gold. He would bow, in reverent devotion, to the Brahmanic rule, if the Brahmanic rule held out hopes of a tempting salary or a sinecure post.

"Busy, busy he always seemed, but what with the Devil alone knew. The Devil was his unwavering companion, his *Fidus Achates*; God a casual acquaintance. Not infrequently I discerned a devilish *schadenfreude* gleam in his fine big eyes, and devilish hatred and malice peer through his acts and speech. But, poor dear, how I pity you. You tried all the arts and stratagems to compass your end, but in vain! You tried Politics; you flirted with Law; you set yourself up as a theologian; you kissed the feet of the great; you humbled, humiliated yourself, you grovelled in the dust, and all for a passing position, a phantom goal. *Vanitas Vanitatum!*

"I shall never forget your tears and lamentations at your failure and your defeat. Did you not bewail, in overflowing tears, the mockery of fate and the inefficiency of flattery? A disappointed man was he—disappointed with life, love, flattery, the world, and himself!

"But disappointment did not completely crush him. He tried yet another avenue to success—the Old World avenue. He claimed the Seal of Prophetship. He stood out before the world as the latest Messenger of God who had strayed away from his destined path, but had, at last, discovered his real vocation, his true mission. But, alas! he came too late to catch the ear of a heathen world—grown weary of prophets and scornful of the terrors of hell. This hope too died away for the doctor, and there was nothing left for him but to submit to the inevitable—failure and despair.

Rest now, in thy obscurity, dear deluded Knight of the Devil—rest in peace until the dust, you grovelled in, claims thy weary, worn body and death stills thy restless, agitated soul."

His sketches are not only brilliant literary performances: they are distinctive of his powers as a satirist. He wielded a trenchant blade, and when he dealt a blow it left its victim writhing, prostrate, pitilessly exposed, mercilessly chastised.

I must not indulge in further quotations; tempting though it be. Every one of these sketches has a special flavour of its own. Wit in one, irony in another, rapier-thrust in the third—they are all sparkling little gems.

I shall now conclude with one small extract regarding Persian Poetry. Dear, ever dear to him was Persian Poetry. He was suckled, so to speak, on it; and his fond love for it faltered not, even for a day. He lived with the Persian Poets. They were his inseparable companions—companions in sunshine and in gloom. I always found on his table a choice collection of poets. To recite, to compare, to contrast, to judge, to decide the comparative merits of his favourite poets, was the one absorbing pre-occupation of his leisure hours, his one unwearying source of joy. To such literary banquets I had a free, unhindered passport; and we sat, not seldom, far far into the night exchanging views, declaiming poetry, feasting on things divine. Fresh, fragrant, unforgettable is their memory—my priceless treasure, my unwaning joy. But I must stop and let him have his say; “I have always clung with passionate clinging to Persian Poetry for—flowery though it be—it has always brought me consolation in sorrow, sunshine in joy. In the use of language as a musical instrument Persian stands second to no language in the world. Its classical poetry is music, music *par excellence*. But its charm is not confined to the mere witchery of words. We meet there forms and thought and feeling which, we had imagined, were our own exclusive birthright; our very own proud privilege and possession. But they are there in luxuriant abundance, expressed in language of exquisite appropriateness. They challenge and refute the claim of the moderns to superiority over them in culture; in delicate, refined thoughts; in sweet,

rapturous expression. Persian poetry, like all true poetry, takes life for its province; human destiny for its theme. It ignores not the seamy side of life. Who would ignore it who looks upon life steadily and looks upon it as a whole? But its message, nevertheless, is a message of joy and hope. It softens grief; it heightens pleasure; it consecrates effort; it inculcates resignation, and bids us be of good cheer amidst augmenting renunciation, dwindling hopes, vanishing joys. Bury Hafiz with me; for not even death shall divide us! All my life I have sauntered in his garden—rich in choicest flowers and fruits. I have listened to the music of its nightingales, the sweet notes of its birds. I have plucked and pressed its roses to my heart with tender, passionate caress. I have inhaled its intoxicating, heart-expanding, joy-inspiring, grief-forgetting fragrance and perfume. How often have I not called his Saki and quaffed his Sparkling Wine! Sweetest singer of Shiraz—Priest and Poet of Love and Life! Unfading is thy Garden: eternal thy Crown.”

I must now bid farewell. *for the present*, to this MS. which I trust will ere long be in print for the lovers of Eastern Literature both here and abroad.

To these memories the following lines are apposite:

First went my hopes of perfecting mankind.
Next—faith in them, and then in freedom's self,
And virtue's self, then my own motives, ends
And aims and loves, and human love went last.

S. KHUDA BUKHSH

MITES FROM MANY

IV

(GOD-WARD)

(I) *Golden-Dream.*

Bind me Beauty in Love's chain,
Never may Love's night know dawn !
Love is boundless, soundless main,
I, a joy-tear dropt thereon.
Love Thou art and Love am I,
Love Thou art and Lord supreme,
Life, death—world-play, low and high—
All are but Love's golden dream.—*Modern.*

(II) *Solar Eclipse.*

The sun that rises day and day
Invokes the flames that downward burn
As lusts of flesh and lusts of mind,
Will none their heads now upward turn ?
God's light descends, so dark to sense,
And sweeps o'er sun, to sense so bright,
The darkness past, the soul finds rest
In sun-renewed—God's sweet, true light.
—*Modern.*

(III) *Joy of Life.*

In all the joys that life affords
If I but mind the Giver of joys.
Transcending far of joys the sum
O, who can then deflect my choice

From that Great Joy, whose faintest shades
 By sense and mind as joys are crowned.
 He is, joys are ; all joys begone,
 The joys of all in Him are found.
 From Him am I and all my joys ;
 A moment past, in Him we're hid,
 And if not in His joy before
 How they and I in life have slid ?
 These transient joys, if true I read
 To joy that's He will surely lead.
 How joyless soul can His joy find,
 Where joys of all are aye combined ?—*Modern.*

(IV) *Tear-drop.*

My greatest joy in this world's life
 —The tear-drop I have shed
 For Him whose name has captured me,
 In warm love Him to wed.—*Modern.*

(V) *Grief and Joy.*

Joy and grief
 —O how brief !—
 Are warp and woof of Life.
 Hope and Fear,
 Smile and tear
 Embroider Life with strife.
 Love and Hate
 Unabate
 Their power with Life to blend.
 Near and far,
 Earth and Star
 Their influences lend,

Late and soon,
Night and noon,
To Sun, Moon, Sky and Main,
Life to tint,
Life to glint
With what comes nev'r again.
Sweet and sad,
Sane and mad,
Thou makest life to mind.
Sweet the core
Sweet the more
E'en Thou canst make the rind.
Life's ills all
—Great and small—
If Thee but bring to mind,
Cease to trouble ;
As burst bubble
In Thee extinction find.
Joy of Life,
Hate and Strife,
Ah ! who knows where their end ?
Sure, Life's joys.
If Love's choice,
In thanks to Thee ascend.
My soul to thine own song attend,
Beseech His grace this veil to rend. —*Modern.*

(VI) *Divine Alchemist.*

If I but mind, God is God
And all that He has made is good,
O how can I then aught condemn
And mine eyes from Goodness hood,
By least can Great be understood ?
What He can with His Goodness bear,

Were it by little me condemn'd
 The shame and madness of my ways
 Who can cure or e'en amend,
 And evil thoughts mine Himward send ?
 Past mind's thick, dark mist
 Shines that Great Alchemist,
 What looks brass base,
 If He enface
 And in love burn,
 Will quickly turn
 To purest gold,
 In love to hold
 Till this life's done
 And new life spun.
 What then will be
 Can man's eye see
 The one unspeakable VERITY ?—*Modern.*

(VII) WOMAN

(1) Vision.

Woman, Life's unravelled knot,
 How to look for God in thee,
 His creative creature thou,
 May He grant the eye to see !
 This eye of flesh
 Heart-ills enmesh
 It sees where God mine be
 Only devil,
 Sire of evil,
 O where to find the key
 To this great mystery !

(2) *Approach.*

Thy mouth, of world the one love-song,
Thine eyes, world-joy's recess,
Thy breast, Life's fountain pure,
Thine arms world's one caress.
Offenders 'gainst their souls they be
Who 'gainst thee would transgress.
The whole of thee
Great mystery,
Of heav'n and hell the door.
Whence this dower,
Whence this power.
Who's at thy being's core ?

(3) *Recognition.*

As maiden, thou God's hidden might
Before Creation's nascent start ;
As wife, His power—the mother of all :—
Inmated, God in Love's pure heart.
I swear, O woman, God's thou art.—*Modern.*

MOHINIMOHAN CHATTERJI

THE ROSE OF INDIA

(ACT IV; SCENE I)

[*Scene.* A room in the house of Krishna, Mailepur.¹ Magudani discovered with Nari, her old nurse.]

Magudani—

O tell me Nari, tell me—thou art sure
That Gad, the prince of Narankot is come
With Sitaraman to the court to-day ?

Nari—

'Tis true, your presence, as I'm standing here ;
And with them came, they say, some holy man
Who worketh mighty magic on the sick.

Magudani—

That is the Apostle Thomas. O what joy
To see them once again, in Mailepur !
O tell me, Nari, art thou too not glad ?

Nari—

If thou art, mistress ; yet no joy compares
With mine at thy return, my heart's delight.

Magudani—

Quick, Nari, someone waits. Who can it be ?

¹ *Mailepur* = 'the city of peacocks.'

*(Enter Sinthice, Magulani's aunt.)*¹

Sinthice—

Joy of my eyes, *Jai Ram*.²

Magulani—

*Jai Sita Ram!*³

Could sight of anything bring joy to them,
Then were I glad indeed!

Sinthice—

Tut, gentle niece!

Thy cup of joy will not embittered be
By an aunt's blindness. Though thy tender soul
It cost a sigh, its bitterness is known
Only to such as dwell in endless night.

Magulani—

But if upon that endless-seeming night
Should strike an unexpected streak of dawn
And herald in the brightness of the day?

Sinthice—

"If"! Nay it boots not to imagine it.
Too happy dreams have sad awakenings.

Magulani—

Yet life were poor without its happy dreams.
And there is more than dreaming, there is Faith.

¹ *Sinthice* (pronounced *Sintentahe*) 'little mother' or 'aunt.'

² & ³ '*Jai Ram*' and '*Jai Sita Ram*' the regular ancient Hindu greeting. *Salaam* is Mohammedan, though the familiarity of the word to English ears perhaps justifies its occasional use in the play.

Sinthice—

Faith—what is faith, or of what use to me ?

Magudani—

Faith is a gift to win what else were lost,
To find what earth affords not—to lay hold
On those fair crowns reserved for faith alone :
To bring a Power above all earthly powers
Down to the need that cries on It for aid.
Where human weakness falters, Faith achieves,
Turning defeat to sudden victory,
And while Despair sits still with folded hands,
Faith reaches up and move the Hands of God.

Sinthice—

Pray, from what well of new philosophy
Hath Magudani filled her water-jar ?
Nay, child, proceed—it likes me well to hear.

Magudani—

O aunt, if this were mere philosophy,
I would be silent, but 'tis more, far more—
Nay all, if thou receive it. From a well
Of living water I have filled my jar,
From that new teaching I have told thee of,
Truth's very fountain, flowing from the lips
Of Christ's Apostle to renew the world.
Nor without knowledge do I talk of faith
And of the blessings that rain down on it,
Who with these eyes have seen the leper cleansed,
The lame man leaping, when the Apostle prayed ;
So that I longed if only he might come
To Mailepur, and by the prayer of faith
The shadow might be lifted from thine eyes.

Sinthice—

Long while, or e'er to Mailepur he come,
My soul from her dark prison may have sped.

Magudani—

Nay, he is come already—he is here—
And thou must seek him, hear him plead for thee,
Till open-eyed thou lift thy soul to Him
Who died and lives again for evermore.

Sinthice—

What will thy father, Krishna, say to this ?

(Enter Krishna.)

Magudani—

My father !

Krishna—

Rosebud ! Apple of my eye !
Never so loved as now !

Magudani—

And wherefore now ?

Krishna—

When is a pearl so prized as when it slips
Back to the ocean from the diver's hand ?
When is the sky so fair as when it glows
With the last lustre of the dying day ?
Or song so sweet as when its melody
Faints on the note that brings it to a close ?
That incense is the sweetest we inhale
But for a moment from a breeze astray
' Mid linden blossoms or wild jessamine ;

Those flowers most fair that quickest fade away,
Those hours most kind that journey on apace,
Turning to memories of some happiness
We hardly knew, till it had winged its flight.

Magudani—

Thy fledgling, father, hath not left the nest.

Krishna—

Soon 'twill be empty and the bird have flown.
The heir of Gondophares came to-day
And for thine hand hath made his princely suit,
With such embellishment of poesy
My soul hath caught the fever of his song;
And all the eve's astir with linnets wings
And trembling with the song of nightingales.

Magudani—

O, father dear, I never knew thee thus!

Sinthice—

Have patience, niece—it cannot last for long,
If I know aught of Krishna.

Krishna—

So the world
Stifles its singers, but I am content :
Proud that for Krishna's daughter comes the heir
To Kandahar, Kabul, and Taxila,
And leads her up the staircase to a throne,
Where she shall reign as queen in Narankot !
My Magudani and no other maid—
Not even the daughter of Mahadevan.
How, Rosebud, wilt thou like to be a queen ?

Magudani—

Right well, my father, so I be *his* queen.
Yet I would dwell as gladly in a hut
As in a palace, if I kept his love.

Sinthice—

What dowry doth he ask for wedding her ?
Belike enough to test our willingness
To spend in huts the remnant of our days !

Krishna—

Dowry he asks not any—only prays
That in her hand she bring an olive branch
For peace perpetual 'twixt our rival states
Long as their happy union shall endure.

Sinthice—

Brought he no gift in token of his love
For Magudani ?

Krishna—

In sooth, I had forgot.
It waits her on the threshold. Hither, slaves !

*(Attendants advance, bringing veils of various colours,
golden anklets, bangles, etc.)*

Krishna—

These playthings will engross an hour at least.
So I will hence. Come, kiss me ere I go.
And may the curtain of thy beauty-sleep
A store of happy dreams in waiting keep.

*(Embraces Magudani, then exit ; Magudani examines the presents.
The voice of God is heard singing without).*

Gad—

If a stray flower should fall
 Low at my feet,
'Tis for my heart to wear,
But if a thorn, to bear
 Pain for thee, sweet.

If but a glance from thee
 On me should gleam,
It should fall softer far
Than ray of evening star,
 Star of my dream !

If but a note of thine
 Answer my song,
Then through my soul aglow
Music divine shall flow
 All a year long.

*(During the serenade, Magudani goes out and stands on the
balcony. When it is over she sings in reply)—*

Magudani—

Take up the rose that falls
 Low at thy feet,
Red as my love for thee,
Fragrant as thine for me
 Glowing and sweet.

Sinthice—

What is the girl a-doing ? (*Calls*) Magudani,
'Tis time thou wert abed ! Go Nari, go,
Bring back thy mistress. 'Tis enough of love
For one day's wooing, and the hour is late.
(*Nari goes and returns with Magudani. Sinthice rises*)
Goodnight, my child, and mayst thou always be
Happy as now I see thee.

Magudani—

Aunt, goodnight.

Thou wilt remember ?

Sinthice—

Ay, I'll not forget (*Exit*)

Magudani—

Thank God for happiness ! Ah, who is there,
There at the window yonder ? Horrible !
Look, Nari, look, and yet it cannot be !

Nari—

Why flies the colour mistress from thy cheeks ?

(*Through a window is looking the face of Ram Chandra ;
on being observed he vanishes.*)

Magudani—

God help us ! 'Twas Ram Chandra. He is here !
Ram Chandra is this night in Mailepur !

Curtain.

To be Continued

FRANCIS A. JUDD

A DISAPPOINTED LOVER

Ne'er once I thought it could be so,
Our tie of love should sundered be :
And hearts must pine that once did glow,
With passion's purest flame : ah, me !

I still felt sure that nought could hap
To cause estrangement 'twixt us two ;
Nor dreamt I once that aught could sap
The basis of our love so true.

My faith was firm—My love and I
United still would run our race ;
And death, at length, when came it nigh,
Would find us locked in fond embrace. (*Nidhu Babu.*)

JYOTISHCHANDRA BANERJEA

GIPSY GIRL

When you danced last night at the masquerade,
Clad as a gipsy girl picturesquely,
When you clattered the cymbals of your tambourine,
How soon the people about you faded away,
And barren earth was where the floor had been.

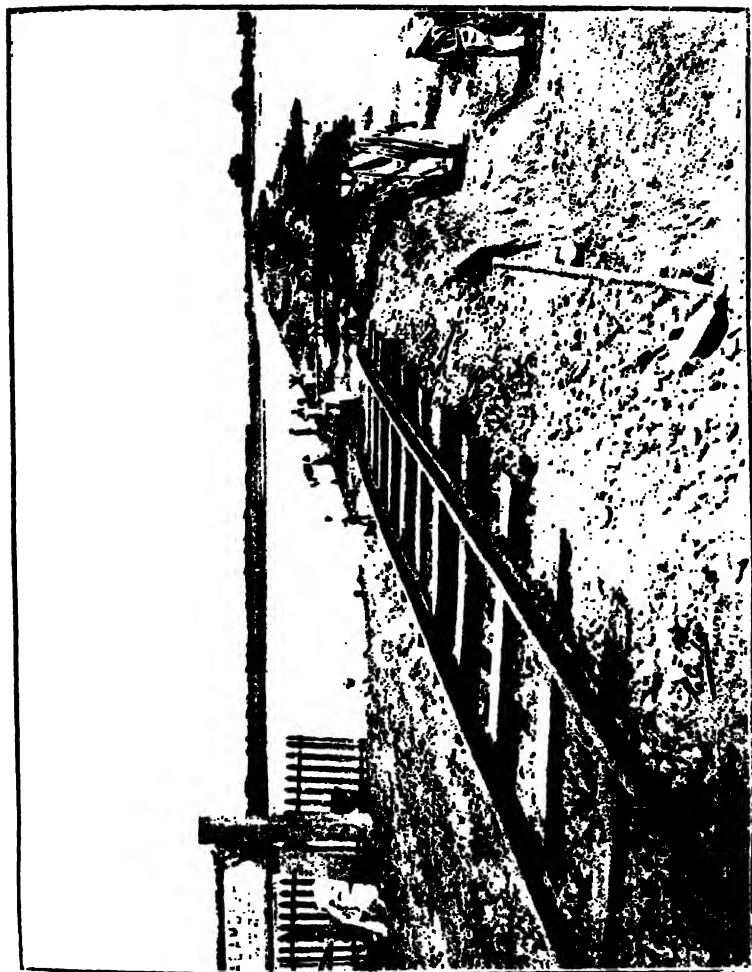
My love, within a wilderness you danced.
And I alone sat watching you,
With the campfire between us,
With the stars peeping down through the leaves.
Your hair was with flowers bedecked,
Your ankles, bejewelled and sparkling.

How soon to Gipsy-land you transported me,
When you danced last night at the masquerade.

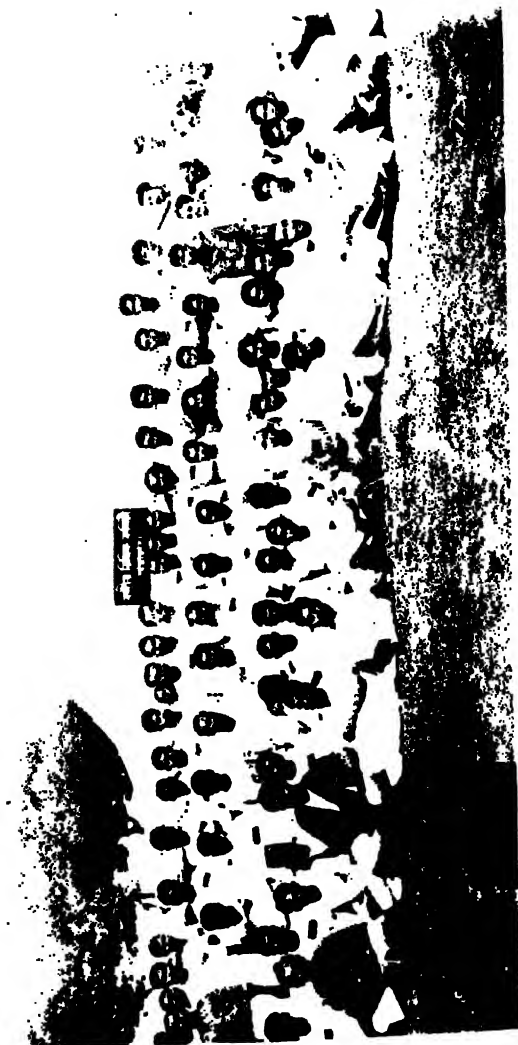
WAYNE GARD

FLOOD IN NORTHERN BENGAL

(By courtesy of the *Bangabani*)



Breach in the Santalar Line.



A group of the crew of the ship.

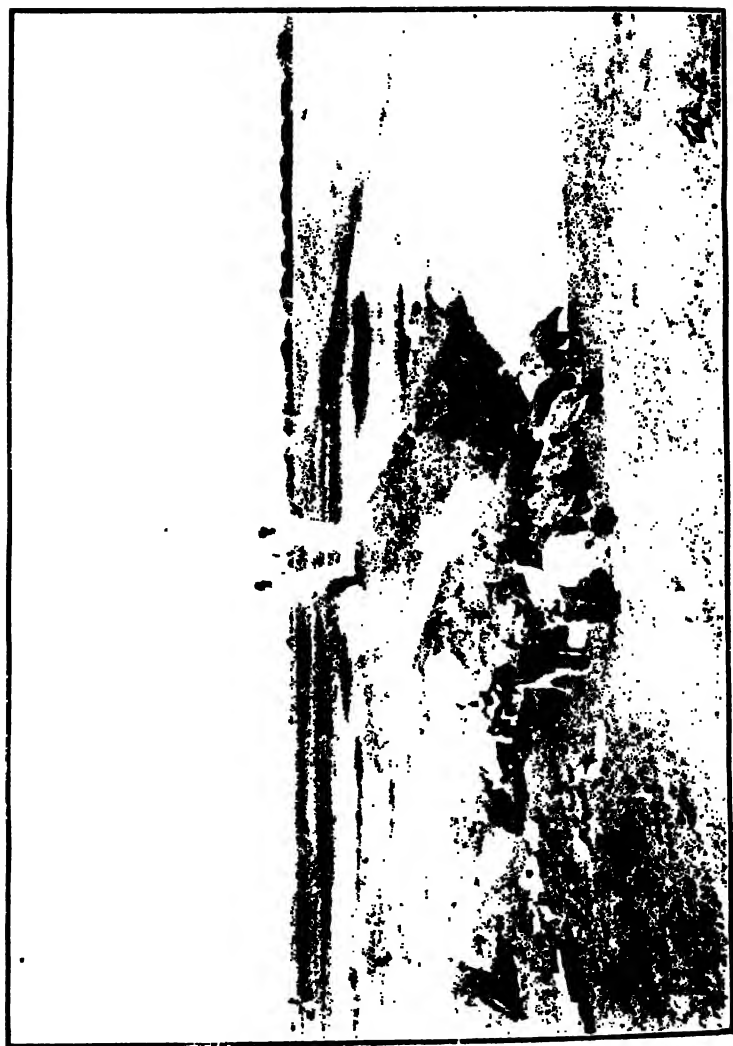




Starvation.



The ruin of the house of Bala Sasimodan Chowdhury of Nismatpore, Bogra, after the deluge.



A STUDY OF INDIAN POLITICAL CONDITIONS

The relations which exist between India and her government and the status which India holds within the Empire have been regarded for generations as a matter of expert intelligence alone. Popular opinion has not hitherto been consulted or instructed on the subject, and the people of Great Britain have had, perforce, to fulfil their Imperial obligations by proxy. So long as the task of governing India devolved on a limited number of officials, recruited in a particular manner and thereafter charged with the whole responsibility of administration according to the provisions of the existing system, it was inevitable that this should be so. The system of Indian administration, at the outset perhaps as good as any that could have been designed for the purpose, suffered increasingly, as time advanced, from a certain rigidity of structure. Every year brought fresh indications that it could be regarded only as a temporary expedient, but the difficulty remained of how and when it could be best replaced and who would have the wisdom and courage to stand sponsor for the changes that must come. The war brought the occasion, and the passing of the Montagu-Chelmsford Act introduced a comprehensive scheme of reform which was officially inaugurated in January, 1920.

It was natural to look to these constitutional reforms for a betterment in existing conditions and, with time, the growth of experience and the development of capacity : it would have occurred to few to anticipate an immediate and radical alteration of outlook, or an activity which would straightway express itself with vigour and practical effect. Yet the reforms have already produced results to surpass all expectations, releasing, as they have, long-stored energies, and revealing capacities the existence of which was

unsuspected because they have hitherto found no legitimate outlet.

The changes which have been brought about in the Indian administration have expressed themselves in no respect with greater significance than in India's relation to international affairs. The power of an international public opinion is now recognised as of the first importance in securing a just settlement of disputed points among the free peoples of the world. For this reason the method of to-day is to submit questions relating to human welfare and progress to a larger body of opinion than that of the parties immediately concerned. An important result of this free comradeship of experience and its conclusions between different classes and different peoples is that relationship between the government and the governed can no longer continue to be a purely private concern. The business of politics must cease to remain in the hands of a chosen few and political theory is rapidly giving place to lay judgment in much that concerns our daily living.

The recent Reform Act inaugurating in India a new policy which is to advance her government by progressive stages towards Home Rule, has already to some extent brought that country in a line with the self-governing countries of the world. India is no longer constrained to view all outside events through Anglo-Saxon eyes. So recently as in 1916 without a representative even on the Imperial Council, in 1919 she had already an independent voice at the Peace Conference. Since then she has been represented in many international councils,—at Washington and Geneva in the conferences of Disarmament and of the League of Nations, and in the International Labour Conference, where her spokesmen played a leading part. For the first time, too, in the history of the British Empire an Indian Representative has paid a series of official visits to the Dominion Premiers to discuss the status of Indians throughout the Empire. Nor has the energy of

Indians been confined to mere oratory or the exchange of theoretical opinion. On many matters which have been the subject of international discussion,—notably that of labour and its attendant problems,—India has been one of the first nations, not merely to ratify the Conventions which she was bound to ratify, but further to take definite legislative action.

The sudden emancipation of India into international politics has produced, incidentally, a somewhat strange anomaly. We find Indian opinion filtering last into the country, of which it should be the first and most natural concern, from other lands and nations; of continental and American peoples engaged in free debate with Indian leaders on subjects regarding which Great Britain has hitherto sought to save her the trouble of reflecting. The old established order is dissolving before our eyes: a shifting of relations is taking place which demands much re-adjustment of understanding. Changes have been brought about with such swiftness that public opinion in England has not yet taken count of them, and has still to learn that India is no longer an Imperial ward whose fate is determined and whose fortunes are administered for her by her trustees. For, in popular belief, the ancient land of India is as fixed and static as its own storied Epics. Problems of development and expansion and political ideals have not suggested themselves in connexion with a country which is surely old enough to have stopped growing, which, it is assumed, has reached a comfortable maturity and settled down, for all time, to an unquestioning routine! This fairy-tale delusion still persists, none the less because it is as thoughtless and un-reasoning as many another legend of childhood. This it is which, confronted with the facts of to-day, has given rise to a general attitude of bewilderment regarding India,—a settled persuasion that the British government has invited chaos and anarchy by its untimely concessions, coupled with the hope that it may still have sufficient power to avert these evils. As

a consequence the opinion prevails that there is nothing which British statesmanship or individual effort can further effect ; that Englishmen would do well to keep what authority they can, with the means at their disposal, and wait for the future to develop itself automatically. The mood of to-day is to regard the romantic tale of British rule in India as finished and to look to the sequel as a tedious anti-climax of academic interest alone. This mood is accentuated by the attitude of numbers of British officials of the old *régime*, who, suspicious of change, are counting the days until they can retire on their pensions, and resign themselves to the prospect of India drifting towards an unknown future in which England will have little lot and less concern. As a topic of popular interest India has, without doubt, lost the glamour and fascination she once possessed. Her stock of current issues appears to be failing, and, in what concerns our personal relation with her, people are already beginning to live in the past.

In point of fact intelligent interest in Indian affairs was arrested at the time of the transfer of authority from the East India Company to the Crown, and still lives on the traditions of the middle of last century. In the old trading days, when the relations between England and India were more direct and personal, neither inside nor outside of Parliament was British opinion apathetic or ill-informed. The periodical enquiries held in London, for the purpose of renewing the Company's charter, aroused and sustained a healthy public interest inspired, no doubt, by the desire of profit, but honestly desirous of upholding the principles of justice, as the conscience of the time conceived them. Only following the change in form of government, with the establishment of a special class of Anglo-Indian administrators, and of the Secretariat system, was popular interest not merely discouraged, but practically excluded from the *arcana* of the specialist.

A certain apathy, a lack of intellectual curiosity concerning peoples with whom one is not likely to have direct dealings, is a common disposition of mankind. In England, owing, perhaps, to defects of historical training, perhaps, also, to geographical situation, it has often shewn itself, even towards those of the same stock who live across the seas, in a general vagueness concerning the map, in a confusion of terms when speaking of commonwealth, dominion, colony, state, union, as if these names might safely be used as synonyms. On the subject of the Indian peoples, geographically so remote,—differing from them in race, creed, custom, and mentality, the people of Great Britain have never been instructed at school or university, in contemporary literature, or even in the press. Occasional brief announcements, mainly of official interest until recently, have been really devoid of meaning to the average reader, who possesses no background of information against which they can be laid to bring them into perspective, no sequence of understanding to supply them with a context. Nor has ignorance been wholly confined to the general public. The governing classes themselves have rarely professed to any but the sketchiest knowledge of Indian conditions and administration, content, as they have been, to leave the task of ruling India in the hands of a picked body of Englishmen. Thus, partly through pre-occupation with home affairs, partly through a modest conviction that their opinion could be of little value compared with that of the specialists whose life was devoted to the task, they have left the country almost entirely to the rule of a little oligarchy of administrators, civil servants by name, in reality constitutional autocrats. This complete separation of spheres of interest within the Empire has had its disadvantages as well as its manifest uses. The Indian Civil Servant, although the best working years of his life were spent in India, although India was his career, his "job," his special subject, was in no real sense identified with India. His friends, his

interests, his customs, were, like himself, imported : his chief ambition has been to do his work well and to get away. Secure in his office, supreme in his authority, removed many thousand miles from the stimulus and restraints of a critical public opinion, could it be expected of him that he should remain an ordinary mortal, imperfect, fallible, like other men ? Could there be much inducement to him to see through the eyes of those in subjection to him, or to try to convince (with the alternative prospect of being convinced), when he needed only to command ? Thus, when problems arose, as problems must arise, especially when the interests of ruler and subject are distinct, and frequently at variance, the hope of India was always to awaken the interest of the Home Government and of the British public, where speech was free and opinion more impartial. This desire, which in a measure foreshadowed the universal demand of to-day,—the desire for a just settlement by means of arbitration and lay judgment, has rarely been suspected in England. Had her politicians understood it better they would hardly have frustrated such hopes by referring all questions to men chosen from among those very specialists against whose judgment India sought appeal. Nor, had they reflected more seriously, would they in so many instances have expected of ex-administrators, whose experience had been largely confined to a particular corner of India and to a particular type of work, a final and unerring verdict upon the whole of Indian life and activity, wherever it presented difficulties.

There was, no doubt, much excuse for this procedure. India was a dependency of the British Empire, but India is a land of which the English were not in a position to understand the conditions and social organisation. The machinery of government was of British manufacture, but it had been constructed by Englishmen resident in India built up gradually, and adapted to the complicated needs of governing a

variety of peoples of widely differing habits, beliefs, and temperaments as one nation.

As the successor of the Moghul Emperors, in sequence of conquest and even in titular authority, Great Britain's conception of Empire in India has always been, to some extent, coloured by Moghul ideas, and not the least in respect of the strong hand and the personal supremacy of local representatives. But Moghul times and Moghul manners can offer no real parallel. The Emperors of Delhi were an Eastern people: they made their abiding home in India: Indian interests became their interests, and a real social fusion took place in spite of the underlying antagonism between the two races and creeds. The Moghul ruler was not serving a country across the seas, and, even in his oppression he was still seeking, above all else, the glory of the country whose children he oppressed.

The understanding that arises from daily companionship and of community of habits and of interests cannot, with reason, be expected from Englishmen towards the people of India. But a knowledge of the plain facts of history is not beyond their reach, even though these are not so accessible as they ought to be. For it is certain that the common and conventional misconceptions of India and her peoples,—fanciful, grotesque, and highly mischievous,—will hold the ground until the realities are widely known and frankly discussed. It is of real importance that the British people, in whose hands, to a large extent, the future of India still rests, should understand the process of development which has taken place in India during the period of British occupation. Without that understanding they can never comprehend that the recent reforms were the logical outcome of the work of the past hundred years, and that the concessions therein embodied were no more than the tardy redemption of definite and repeated promises, the fulfilment of which has long been overdue.

For nearly a century education has been conducted in India on Western lines. English authors and English political ideals have supplied the thought with which the student's mind has been fed, and a first essential of national unity has been supplied to this country of a hundred vernaculars by giving it a common language,—English, the language of the government. Nourished, as they have been, on British ideals of individual freedom, representative government, and progressive development, is it the fault of India's "literate" classes,—if fault it be,—that they have learnt to possess a British political temper and instinct for liberty? Rather should it be welcomed as the one sure sign of vitality in an educational system which is otherwise marred by much that is burdensome, and irrelevant.

The turning-point in Indian modern history came, of course, with Macaulay's famous minute of 1835 deciding in favour of an English form of education in India. Of this minute the historian Sir John Seeley wrote: "Never on this earth was a more momentous question discussed. Macaulay's minute remains the great landmark in the history of our Empire considered as an instrument of civilization. It marks the moment when we deliberately recognised that a function had devolved on us in Asia similar to that which Rome fulfilled in Europe."

In comment of this passage Mr. C. F. Andrews wrote in 1912:¹ "When we consider what has taken place since then, how the Indian Renaissance which sprang from Macaulay's policy has pointed the way forward to the modernising of Japan, China and Corea; how a reflex action has opened out new movements in Persia, Turkey and Egypt; how all the great revolutions which have recently convulsed Asia have had this same cause behind them; how even greater events than these may be before us in the future; we can then understand that there is much to justify Sir John

¹ *The Renaissance in India* by C. F. Andrews.

Seeley's sentence with respect to Macaulay's minute—
'Never on this earth was a more momentous question discussed.' "

The avowed intention of Macaulay in advocating an English form of education in India was to anglicise India. With a barbarism in cultural matters which was not uncommon in his day he wished to blot out the great past of Hindu and Moslem culture and substitute for it an English mind and English manners. In its immediate result his policy had the effect of producing a youth which was neither Indian nor English, which was out of sympathy with its own culture and was more disposed to look to the West for its ideas and motives of conduct. But reaction soon set in. It did not take long to prove that it was impossible to ignore India's long antecedent civilization. The situation was far better understood by Ranade, an Indian scholar and reformer of the next generation.

"The process of growth," he wrote, "is always slow when it has to be a sure growth. There are those among us who think that the work of the reformer is confined only to a brave resolve to break with the past and to do what his own individual reason suggests as proper and fitting. The power of long-formed habits and tendencies is ignored in this view of the matter. The true reformer has not to write on a clean slate. His work is, more often, to complete the half-written sentence."

The results of Macaulay's educational experiment were even more momentous than its author had intended, albeit in one essential respect wholly different in kind. The birth of an Indian national consciousness really dates from this epoch. The Indian of to-day is more ardently a son of his own country than he ever was before. He is an Indian before all else,—but he has assimilated new ideas. In particular he has been a singularly apt pupil of British teaching in respect of political ideals and institutions. These have penetrated his mind and

spirit, have gained his sympathy and admiration when many other features of Western culture made no appeal to his imagination, or may have actually repelled him. But the concept of liberty, progress, representative government and parliamentary institutions is not, for him, a possession of the British race. He has claimed, rightly and logically, that it is his to translate into his own experience. With a wise prescience, which may atone for an unnecessary patronage of manner, Macaulay himself wrote of this historic reform: "It may be that the public mind of India may expand under our system until it has outgrown that system; that by good government we may educate our subjects into a capacity for better government; that, having become instructed in European knowledge, they may, in some future age, demand European institutions. Whether such a day will ever come I know not. But never will I attempt to avert or retard it. Whenever it comes it will be the proudest day in our history." Nor was Macaulay alone in his vision of an India of the future which should govern herself. There were not a few broadminded English administrators in India in the old Company days who looked to autonomy in India as the ultimate goal of British administration. Even before Macaulay's time Sir Thomas Munro, Governor of Madras, had raised this same question and had expressed the conviction that "we should so educate our Indian subjects as to enable them to govern and protect themselves." Most significant too, was the admission of the Parliamentary Committee in the Act of 1833, renewing the Company's Charter shortly after the Great Reform Bill, that "Indians were alive to the grievances of being excluded from a larger share in the executive government.....and that such exclusion is not warranted on the score of their own incapacity for business or the want of application or trustworthiness."

The transfer of power from the Company to the Crown effected a radical change in the character of British rule in

India. It conferred a blessing on the country in delivering her from a dual authority, and placing her in a position to receive the benefits of material progress and industrial development. On the other hand the Company had introduced into India, incidentally, as it were, individual governors of personal integrity and administrative genius,—men whose object was good government, not exploitation, who sincerely looked upon the responsibility of Indian administration as a sacred trust. If such have not been lacking in the Imperial government it has certainly been more difficult for them to carry through reforms which appeared to militate against the interests of their own privileged order. With the rise of a large official class of Anglo-Indian administrators there was no departure from Macaulay's system of education, designed to train up a race of men which should demand British institutions and enjoy British privileges, but this purpose was no longer held in view. With much talk of the mission of Great Britain to rule India solely for her own good; with, it is also true, a general sincere desire to act fairly and equitably by a subject country, it was not the intention of the little oligarchy of British officials to surrender position and prestige,—whether personal or Imperial,—for a hazy ideal. It is easy to forget the promises of one's predecessors in office, and those promises were cheerfully ignored by a body of men who felt, with more reason than justification, that, in view of their own superior efficiency and training, it were far better to leave things as they were, and continue, *sine die*, the exercise of a benevolent despotism. This attitude was the more plausible because the vast masses of the agricultural population, uneducated and unconcerned by the problems of government, were quite content to accept the placid security of British rule. Moreover, to the Indian Government was due the first sincere effort that had been made to solve the problems of the many evils and injustices arising from the social stagnation of the Hindu

caste system. Above all, the untouchables, the pariah castes, were wholly in favour of a continuance of British rule, under which, for the first time, they had received treatment due to human beings, and the chance of rising in the social scale.

With all this to its credit, however, the Anglo-Indian bureaucracy fell far short of the brave idealism of the best of the Company's rulers, who, in a time when the concepts of self-determination and the natural right of a nation to govern itself were unknown to the public, confidently planned to train up Indians to desire and demand political self-dominion. Posing, not without justice, as the guardians and protectors of India's ignorant masses, her rulers have too often forgotten to enquire whose was the responsibility that India's masses remained ignorant. In denouncing the political theories of the small percentage of Western-educated Indians as narrow and one-sided they have omitted to remedy the defects in an educational system which these did but illustrate. The growing demand of Indians for a larger share in the government of their own country, in accordance with the promise contained in the Act of 1833, might well have gratified a Munro or a Macaulay, but from the latter-day official it earned the ugly name of disloyalty or sedition.

The steady increase in political discontent, which found its first organised expression in the Indian National Congress, founded in 1885, was a natural and logical result of the lessons of European political evolution. It was a healthy sign of a growing self-respect and need never, if wisely handled, have been turned into a spirit of bitterness and open hostility. The demand of Indians for a real representation of Indian opinion in the government of their country was inspired not by a desire for office, nor, at first, by a conscious determination to secure complete independence, but because they sought a means to redress injustices and racial humiliations imposed upon them by an alien government. In the earlier days of the Company's rule they had submitted to hardships without

protest, because the experience of India, for generations, had inured her to submission. The position is well summed up in an illuminating little pamphlet by Canon Davies,¹ published last year,—“The central problem of India may be stated in a few words. A great Asiatic people has acquired, and is increasingly acquiring, a sensitiveness to wounds, old and new, of which it gave no indication even a few short years ago ; or, it would be truer to state, which Europe could afford to disregard till yesterday. Europe, for centuries, has looked upon the East as a fair field for her adventures, commercial, political, and even religious. To-day the East is gaining courage and determination to declare that in no one of these fields is she any longer to be regarded as mere material for exploitation of the West.”

To take an example :—during the whole of the Company's rule, and for some time after, an offender against the law, if a European British subject, had special privileges as to the mode of trials, the right of appeal, and the right to apply for release from custody. In days when travelling was difficult this often amounted to complete immunity from punishment, outside the three Presidency towns where the Supreme Courts were established. Moreover, in all cases it was easy to secure a much more lenient verdict than would have been meted out to an Indian offender. The Ilbert Bill, introduced under the sympathetic Viceroyalty of Lord Ripon in 1882. “for the purpose of abolishing judicial disqualifications based on race distinctions,” provoked such violent opposition from the whole European community that a compromise was effected which resulted in the very principle at stake being abandoned. This opposition so ruthlessly carried on by Englishmen was not without its effect on Indians. It may truly be said that the insensate opposition of the English to a simple measure of justice gave an impetus and a direction to the new-born spirit of

¹ *India at the Present Time* by A. W. Davies, Canon of Lucknow, with a foreword by the Archbishop of Canterbury.

Nationalism which has continuously gathered force since then, gaining stimulus from every fresh opposition to legitimate aspirations. And the lesson of the efficacy of agitation has never been forgotten in India.

The political history of India since the beginning of this century is less obscured than during the period of silent growth and preparation which preceded it. Following upon the partition of Bengal, a measure carried out in defiance of the opposition of most of the people concerned, discontent at last proclaimed itself, in speech and in action, in agitation violent or constitutional, according to the temper and opinions of the agitators. A measure of reform (the "Morley-Minto Reforms") was granted in 1908 and was succeeded by a brief respite from public "unrest," but Nationalist feeling continued to grow and to express itself in propaganda and in bodies of increasing numbers and influence. After this the Great War broke out and India's whole-hearted rally to the aid of Great Britain in danger, her signal services, her voluntary contributions and sacrifices caused her to appear in a new relation to that country. She fought as a willing and eager ally, and from the first was promised a new consideration in language which held hopes of the treatment due, not to a subordinate, but to a partner. This promise was redeemed, too tardily as events counted in those years of crowded effort and emotion, in the grant, in January, 1920, of a revised constitution, founded upon the Montagu-Chelmsford Report, towards fulfilment of the pledge publicly announced in August, 1917.

The Montagu-Chelmsford Report was the first official document to set forth, in plain judicial language, the defects of the existing system of government, and to acknowledge responsibility for the demand for political self-dominion. It further announced the intention to encourage and satisfy that legitimate demand "by progressive realisation of responsible government." "The demand that now meets us from the

¹ Report on Indian Constitutional Reforms, p. 148, para. 170.

educated classes of India is no more than the right and natural outcome of the work of a hundred years. There can be no question of going back or of withholding the education and enlightenment in which we ourselves believe ; and yet the more we pursue our present course, without at the same time providing the opportunities for the satisfaction of the desires which it creates, the more unpopular and difficult must our present government become and the worse the effect upon the mind of India..... Unless we are right in going forward now the whole of our past policy in India was a mistake. We believe, however, that no other policy was right or possible, and therefore we must now face its logical consequences."

This Report, at once comprehensive and sincere, free alike from official omniscience and from the desire to compromise, in however small a degree with Truth, must eventually be recognised as a work of true and enlightened statesmanship. At the moment the greatness of its conception is obscured by doubts and difficulties, by opposition from without and from within. It rests with the British public, whose honour is pledged in clear and definite promises, to stand loyally by the whole of their declared policy to India, and thus win back the confidence which recent events have so severely shaken. It would be too lengthy here to dwell upon the thrice unhappy incidents which occurred in swift succession to discredit faith in British intentions and British promises at the moment when these great reforms could and should have achieved their pacific aim. The movement of opposition from within, which we know under the name of non-co-operation, led by a man of high and disinterested record, no enemy hitherto of British rule as such, was begotten of real grievances and hardships,—for the most part still unredressed,—and was nourished on distrust and disillusionment. It will certainly continue to block the path to reconciliation so long as, and, I believe, no longer than the actual experience together with the immediate memory of wrongs endures.

But the movement set on foot by Gandhi has a significance in India far beyond that of mere obstruction or opposition. His teaching, however one may judge it politically, however impracticable its social tenets in a modern world, in which all the nations must live together in increasing association with one another, has a deeper and more enduring value than that of material circumstance or condition, meaning more profound than any concession, privilege, or status which it is in the power of authority to confer. By addressing his teachings, not to Indians of position or influence, who possess the weapons of speech and of pen or the protection of patronage, so much as to the unlettered masses of manual workers whose voice was never heard, Gandhi has awakened in his countrymen a new courage, a sense of dignity and self-respect. If the belief of racial superiority,—the one unmitigated curse of British rule,—a belief which is of modern and Anglo-Saxon origin, has become an essential article in the creed of the invading Englishman it has flourished because Indians, in their apathy, have been content to acquiesce. Heirs of a philosophy which teaches patient endurance and surrender to the Divine will they have too often shewn themselves, in the decadence of their ancient faith, resigned and effortless, lacking the sterner qualities of fortitude and of perseverance. The teaching of Gandhi is acceptable to the Indian spirit because it is in essence both Indian and religious, but it has replaced the old servility with a militant courage which is certain in time to find its true direction and achieve its proper purpose. Emancipation from oppressive conditions, of whatever nature, can be won only at the price of personal endeavour; it cannot be granted or conferred. A new India which pulls her own weight in force of character, as in united effort, will find her essential place in the world, whatever administrative checks she may suffer, whatever be the blunders or miscalculations of even an “inspired” leader.

None the less, there is little room for mistakes on either side at this nerve-crisis in the world's condition. The duty of honouring pledges is not more strictly incumbent upon the Englishman than is the duty of showing a sincere desire for conciliation upon the Indian. Protest may be a useful, a necessary, weapon upon occasion, but it is not the whole armour of man. If Indians have learnt to strive and suffer in the cause of their country they would serve her better still by a self-mastery which would resolutely put away the bitterness of the past and jointly work for the great goal of *Swaraj* which they have been invited to pursue. This goal can be attained in no way other than by united action, the action of English and Indians working together, prepared to forbear greatly and to forgive much, to look for every cause of encouragement and to accept no evidence of defeat,—except as a spur to further effort.—And encouragement is not far to seek.

The working of the reforms themselves gives every ground of hope. In spite of the difficulties attending the earliest elections there has been no dearth of men of high ability and character prepared to undertake the ministries in the transferred subjects. In the new Indian Legislative Assembly speeches have been weighty and dignified, the subjects debated of real intrinsic interest and importance, and the protection inspired by a president above all suspicion of partisanship has given to the Indian members a new confidence and faith in the future. Sir F. Whyte, the President of the Legislative Assembly, himself bore witness to debates "well worthy to stand by the side of the best debates in the Imperial Parliament." Above all else, the actual exercise of power, by men whose politics had hitherto been confined to theory alone, has awakened in them a zeal and enthusiasm, a sense of responsibility and self-assurance which could have been gained in no other fashion. It should be of the greatest interest to watch the growth of these new

national councils. All evidence points to the conclusion that Indians had well served up to the responsibility of office in all branches of the administration, and the pace of development within the next decade may surprise even the most optimistic sympathiser.

Since the reforms have now become accomplished fact, with every prospect of a continuous future development, it is important that we should understand the exact status of India and the goal which she is encouraged to pursue. So long ago as in 1858 it was announced in the Royal Proclamation made by Queen Victoria that her "Indian subjects were to be held in equal regard with all other of her subjects throughout the Empire." In the Royal Proclamation made by King George in 1920, following the passage of the Government of India Bill into law, occurs a sentence of deep importance,—“There is one gift which yet remains and without which the progress of a country cannot be consummated,—the right of a people to decide her affairs and to safeguard her interests.” His Majesty further states, “For years,—it may be for generations,—patriotic and loyal Indians have dreamed of *Swaraj* for their motherland. To-day you have the beginnings of *Swaraj* within my Empire, and the widest scope and ample opportunity for progress to the liberty which my other Dominions enjoy.” This phrase “my other Dominions” contains the implicit assurance that India is henceforth to enjoy the status of Dominion and has ceased to rank as a mere Dependency. As for the relations existing between the British Government and the Dominions the principle of complete equality is finding more and more constant acceptance in the language of responsible statesmen. On July 9, 1919, Lord Milner expressly declared that “the only possibility of a continuance of the British Empire is a basis of out-and-out partnership between the United Kingdom and the Dominions. I say that without any kind of reservation.” Later, on June 17, 1920, he stated, “There is no kind of authority which in practice

(whatever be the theory of the Constitution) the Parliament and the people of the United Kingdom claim any longer to exercise over the Parliament and peoples of the self-governing Dominions. We frankly accept the position that we are partner nations of equal status.' It should remain, therefore, a question of time alone,—so many years more or less according as the facts bear witness to a stable and orderly development, before India enjoys the full rights and privileges of a self-governing Dominion. The principle has already been conceded and royal sanction has been given to the task which India must now, in her own experience, achieve.

Such, in briefest outline, is the story of India since her destinies were associated with those of England, and such her present status and her aspirations for the future. Of all the great movements of the world few have been less recorded than that of India's emergence into modern history as a united nation. It has taken place almost unnoticed in the world, misconceived and distorted, through ignorance or partial presentation of the facts, in the mind of the people which has for generations supplied her rulers and so profoundly affected her development.

A popular opinion so long stunted and mis-shapen is scarcely able to adjust itself immediately to the knowledge of new conditions. We may concede principles in theory but it involves effort and imagination to translate them faithfully into action. The movement which is growing up towards the creation of a world-citizenship, the rising faith in internationalism based on the friendship of nations, the modern creed of the interdependence of different peoples no less in the political than in the economic sphere carries with it certain definite obligations. It cannot be reconciled with the assumption by one power of the destinies of a foreign people; it forbids an adult or adolescent country to remain in the tutelage of minority. Yet no doubt each sovereign nation will continue to make some mental reservation until the passage of time and

the knowledge of new facts brings a corresponding development of ideas.

To India, however, the pledge has been given already: her status is no longer a matter for conjecture or controversy: her emancipation is assured. India is already well on the road to complete autonomy: she must at all points test the principle of equal partnership which has been accepted as the basis of the British Commonwealth of Nations. And will this principle stand the test? "The overshadowing danger," says Sir Valentine Chirol,¹ "and not in India alone, may be here to-morrow, if not already to-day, that of a racial conflict. Is there any other way to avert it than by frank recognition of racial equality in the sense of rightful opportunity for both races, Asiatic and European?.....The solution will rest with the British people all over the Empire. Will the British Government and the Dominion Governments and the free peoples behind them approach all questions in which India is concerned in the same spirit which they have already learnt to bring to bear upon questions in which not India but other parts of the Empire are concerned? Will they be prepared to approach them in the same spirit in which India was welcomed in times of stress and storm to the War Councils and the Peace Councils of the Empire? That spirit was the spirit of equal partnership in a common danger, of co-operation on equal terms in a common struggle, of equal opportunities of sacrifice in common. It was nobly conceived in the womb of war. Will it have died with the war?"

Is anything really needed further than a simple knowledge of facts to replace old prejudice and secure fair dealing and sympathetic action? For better or for worse India is wedded to British polity. Upon these lines she has received her training: in this direction lies her progress: by these means can her new nationhood achieve its best expression. To quote again from the Report of Indian Constitutional Reforms—

¹ *India Old and New*, Chap. XVI, pp. 306 & 307.

(p. 149, para. 180).—"As power is given to the people of a province or of a Dominion to manage their own local affairs, their attachment becomes the stronger to the Empire which comprehends them all in a common bond of union. The existence of national feeling, or the love of and pride in a national culture, need not conflict with, and may indeed strengthen, the sense of membership in a wider commonwealth.....The Empire which includes the French of Canada and the Dutch of South Africa—to go no further—cannot in any case be based on ties of race alone. It must depend on a common realisation of the ends for which the Empire exists, the maintenance of peace and order over wide spaces of territory, the maintenance of freedom and the development of the culture of each national unity of which the Empire is composed."

Moreover, it is just and right to recognise that many Englishmen, members of the Indian Civil Service, have generously admitted the benefits of a new system which their order, with few exceptions, opposed: that their conversion, if late, has been sincere and whole-hearted. These have accepted with readiness a change which has effected a much more harmonious adjustment of relationship towards Indian leaders than was possible under the old *régime*. An immediate result of these altered relations is that India now looks, not as before to the British Parliament, but to the Government of India for justice and for the interpretation of her wishes. This is no longer an alien power that governs her: it has become *her* government.

The idea of Empire to-day is very different from that which was taught during the last century. The belief that a country which was "won by the sword must be held by the sword," is no longer universally accepted,—but it is by no means obsolete. The power of a phrase is more potent than logic to many to whom the effort of individual thought is distasteful. It would be well if those who look for safety

only in custom would remind themselves that the lines of development laid down by the Indian Reforms are neither novel nor revolutionary in the history of Empire.

The founders of the Roman dominion both planned and achieved an organic unity within the Empire by granting full rights of citizenship and allowing an almost complete local autonomy to the nations that came under the sway of Rome. The phrase of Tacitus "*imperium ac libertas*" is no mere figure of speech, and it was a source of pride and no sign of subjection among the conquered nations to be able to say "*civis Romanus sum.*" A certain Greek of Cilicia in Asia Minor, a province under the Roman Empire, was once taken prisoner in Jerusalem. "And as they bound him with thongs Paul said unto the centurion that stood by, Is it lawful for you to scourge a man that is a Roman and uncondemned? When the centurion heard that he went and told the chief captain, saying, Take heed what thou doest: for this man is a Roman.....The chief captain also was afraid after he knew that he was a Roman and because he had bound him." Later when St. Paul was in danger of being torn in pieces of the multitude by reason of his preaching, this same chief captain rescued and sent him under an escort of two hundred soldiers and three score and ten horsemen and two hundred spearmen under command of two centurions to the Roman Governor at Caesarea, to whom he explained, "This man was taken of the Jews and should have been killed of them: then came I with an army and rescued him having understood that he was a Roman." Such was the sanctity of person which the Roman citizenship conferred on an obscure young man of the outlying province of Asia Minor! And this Roman *imperium*, found upon autonomy and equal privilege, secured to civilized Europe, North Africa, and the Nearer East the blessings of peace, plenty, and orderly development for a period of four hundred years.

Truly in political development and Imperial organisation there is nothing new under the sun. The "great constitutional experiment" of granting to India a form of government which shall develop in progressive stages towards complete autonomy has found few public champions in England even after the event. Expediency, moral obligation, necessity imposed by the new lines of democratic evolution which Great Britain has inaugurated, are the answers variously given to a public which is still reluctant and unconvinced; but even the most progressive of politicians regard it as a venture of faith founded, in some degree, upon a Quixotic idealism. Have the teachings of the classics become a dead letter to such an extent that the plain lessons of history are no longer remembered? In the early days of this era, when there was no "world-opinion," and when many of the provinces of the Roman imperium were scarcely emerging from the ignorance of barbarism, Augustus saw that freedom and equality were the only possible conditions of a lasting union and contentment. "The governed knew," writes the historian Ward-Fowler, "that they might expect to be protected from enemies within and without the limits of the Empire and that they might hope to rise eventually to the political status of their rulers."

The conception of a Commonwealth of Nations is still older than Rome, but the times were perhaps not ready for its establishment. "*Primum Graius homo.*" Historians have been too much dazzled by the phenomenon of Alexander's victories to devote much time to his ideals. His death cut short the fulfilment of them and reserved it to the days in which we live. Neither love of conquest nor the desire of carrying Greek ideas to the East was the whole of Alexander's ambition in his adventures in Asia. Above all else he dreamed of a world-Empire, in the sense of establishing not dominion and overlordship but co-operation and common understanding between the peoples and the nations. His Macedonian

followers, who murmured and chafed at his methods, were the reactionary public of the day ; but they surrendered unconvinced to a will which they dared not oppose. To Alexander belongs the idea of bringing together the East and the West,—and he knew them both,—in a composite civilization to which each should contribute, according to its kind. His conquests were to be but the prelude to a real fellowship of nations, not ruled despotically from above but blended in willing union of race and of thought. There have been great statesmen in modern times, but no Alexander ; and there has always been the reactionary public of “Macedonian followers.” Great statesmen have introduced into India those elements of thought and of progress, which, united to her own great culture, have made of her a single nation, and developed in her a strong sense of liberty and national aspiration. The average official, without malice, but equally without imagination, has forgotten both promises and progress, and his forgetfulness, in successive generations has engendered a spirit of distrust and hostility which make even the pledge of partnership a thing suspect, to be accepted, at best, with reserve, lest events should once again cheat of fulfilment.

In the genius of Empire Great Britain has been less the pioneer of the modern world than the successor of the ancient. Neither in power of conquest nor of administration has she surpassed, in any real degree, the achievements of Roman arms and Roman statesmanship. The purpose of her destiny is different in kind,—the compelling influence of the instinct and interpretation of Liberty. Wherever the English have adventured there the seeds of liberty have been scattered : their speech, their literature, their institutions have carried these far and wide. This quality it is which has made Englishmen, whether they wished it or no, sometimes even in defiance of their deliberate designs, the greatest emancipators of the world's races. It is a vain thing to fight one's destiny. In

mistaking this, her natural, purpose for the obligation to impose law and order,—often to the detriment of development and growth,—and to enforce submission to a masterful authority, Great Britain has invited many a political difficulty which has baffled and embarrassed her, whether on her own soil, or that of other countries where she has been supreme. In liberty there can be no monopoly, no preference. Practice must illustrate profession if it is not to be overthrown.

The British Commonwealth of Nations, this latest political form in which the spirit of liberty has become incarnate, is at once a witness to Great Britain's achievement and a challenge to her good faith. By nothing less than eager and intelligent co-operation with every partner in the Commonwealth, with those, above all, whom repression has embittered and estranged,—by long patience, if need be, until normality is restored,—can proof be offered of the fruits of that good-will which is the only true foundation for a sure and lasting peace.

E. AGNES R. HAIGH

A POLICE COURT IDYL

The door of the chamber was opened wide.
And the Beak stepped forth with stately stride,

On to the dais his way he took,
On his face he wore a learned look

Which seemed to say, this from me you can take,
I'm a learned Beak who makes no mistake.

On reaching his seat he bowed quite low,
To the audience, who stood row behind row.

Those who were present returned the nod,
With a pleasant smile at the little tin god.

The magistrate sat in his high backed chair,
Adjusted his specs, looked up with a glare.

There's much, too much, noise in the court, said he,
Oh, where and oh, where can that sergeant be ?

A constable jumped as if he were shot,
Cried array *bapray*, what tommy rot !

Straight thro' the door he went like a streak,
At his knees he looked uncommonly weak.

The sergeant he saw in a cloud of smoke
Laughing as if he had cracked a joke.

The constable shouted, his hands in the air,
As if he were in the last throes of despair.

Sergeant *sahib*, *ap kahan chala gia*
Magistrate *ayo*, *bauth goolmal kia*.

The sergeant slunk in with his face like a mask,
And was taken at once by the Beak to task.

These people are holding a big pow wow,
You should have been here to stop the row.

The sergeant roared silence, now *baito* you sweep,
You're enough to make the angels weep.

He cursed them all round and swore most hearty
At a rather remarkable stout old party

Whose legs alone were seen in the air
As she went thro' the seat of a bottomless chair.

Silence at last in the court was restored,
The magistrate then took up his board.

Ram Bux, he roared. Ram Bux stood forth
Shivering to meet the magistrate's wrath.

You have the cheek, the magistrate said,
To say you were beaten and left for dead.

You've bruises, abrasions all over your body
Made by some persons, the sellers of toddy,

Because you offered a pice for a drink
Then filled yourself like a bottomless sink,

I fail to see a bruise or abrasion
Your complaint appears to be an evasion

Of truth, in fact a disgracefullie,
You'd better clear out, vamoose, yes fly,

If I lose my temper you'll quickly find
How I deal with rascals and men of your kind.

The complainant stepped down with a crest-fallen look
And out of the court his way he betook.

A young lady stepped up with a smile on her face,
Your worship, they've turned me out of my place

In Kinderdine Lane, yes, I've paid my rent.
I don't quite know what my landlord meant

I've enhanced your rent you can't pay so
I'll keep all your luggage but out you go.

I've therefore run hard with might and with main
Straight to your worship from Kinderdine Lane.

Dear me, said his worship, that sounds very sad,
Your landlord indeed must be very bad.

He'll have to be punished, that's very clear
That's a neat camisole you're wearing my dear.

The young lady nodded, sighed, shook her head,
Nothing doing, your worship, she smilingly said.

The pleaders all sniggered, *wah ! wah !* said the clerks.
His worship is up again to his larks,

The magistrate frowned, pulled down his vest
Honi soit muttered he, I've forgotten the rest,

I know that it deals with something quite shocking,
A garter, a foot or a pretty girl's stocking,

I was not aware it applied on the whole
To a pretty young lady's neat camisole.

Next rushed up a man all dressed in yellow,
Your worship, your worship, he loudly did bellow

What on earth's the matter ? there's no need to shout,
Where's the court sergeant ? just turn that man out.

Your worship, your worship, to my tale lend an ear,
My story is sad and you really must hear,

My family members, all hearty and hale,
Are dying of measles, I wish to impale

Myself thro' the belly on two or three rods
In order to satisfy some of the gods,

But I can't do so without your consent,
And down to the ground in obeisance he bent.

Oh, go to the devil, low muttered the Beak,
Adjusting his specs, he proceeded to speak.

It is not in my power to assist you to heaven
On one or two rods or even on seven

If I were to do so I'd be in a fix
Suicidal abetment, three hundred and six.

Who would then pay the Barrister's fee
To come into court and defend me ?

In at the door came a warrior bold,
Let by a man bearded and old.

Oh, I feel so nervous, the warrior said,
As he by his henchman forward was led.

I don't like this crowd I am very upset
The court is so hot I'm terribly wet.

He had on glare glasses and looked all around,
Till the nice-looking damsel he presently found.

His eyes lighted up his glare glasses behind,
Ha! ha! muttered he, by Jove what a find !

Forgotten his nerves, his case, the heat,
His intention to secure a seat.

Before his eyes the vision rose,
Of dainty figure dressed in clothes,

Close-fitting hat and shoes to match,
No other girl on her a patch.

The effect on him, as fire on tow,
Within his breast his heart aglow.

He longed to press the vision bright,
To his fond heart and hold her tight.

And kiss away all her alarms,
While she lay snugly in his arms.

He caught her eye, she shook her head,
No, no, my friend, I'm newly wed.

There stands my husband near the door,
If he sees you I bet the floor

Will be acquainted with your head,
And prove to you you've been misled.

The warrior bold glanced quickly round
And near the door the man he found.

He felt o'erpowered by the heat.
And sank back quickly in a seat.

The board was then called on apace.
The Beak thro' it did quickly race.

The court was clear, his work well done.
He looked at the clock, the clock struck one.

The Beak then turned and cracked a joke,
Then left the court to have a smoke.

D. SWINHOE

Reviews

The Future of Indian Politics: Annie Besant, D. L., Theosophical Publishing House, Adyar, Madras.

A book by Mrs. Besant is a welcome event and the present one has all the qualities which we have learnt to associate with her writings. In this book she takes her stand on the principle that ultimate freedom for India under British rule is inevitable. In the Introductory chapter, she gives a bird's eye view of the relations of India and Britain to the end of the East India Company and the upshot of the Company rule, is, according to our author "tragic beyond words." "The Company made treaties and broke them, or forged them if more convenient; it cheated, robbed, murdered, oppressed,—and built an empire in about a century" (p. 13). The first chapter, entitled '*Step By Step*' takes us from the first Indian National Congress to the outbreak of the European War in 1914. Mrs. Besant attempts to show that the seed of the Congress was planted by the Theosophical Society at its convention in the year 1884. But much may be pardoned to those who have much loved. Chapter II deals with the reaction of the Great War on India and the growing demand for the recognition of India's claims for freedom. The next two chapters are devoted to what is called "The great Agitation" though this name is more appropriate for the present unrest. After an illuminating account of the different factors which contributed to the national awakening (Ch. VI), we are introduced to the central problem of the book, "The Future of Indian Politics." It is whether India shall remain within the British Empire or get out of it and win a solitary independence. To the present writer, the question has a flavour of unreality. Even the leader of the non-co-operation movement does not want to break the British connection. The rebuke he administered to Mr. C. F. Andrews for entertaining notions of independence is certainly within the knowledge of Mrs. Besant but galling treatment sometimes provokes even the mildest of men to play with such notions. If Reuter is to be believed, even that moderate politician who has as much faith in the mission of the British Empire as Mrs. Besant declared in Canada that India's connection with the Empire was conditional on fair treatment. We shall be unjust to Mrs. Besant, if we think that she stands up for British connection at any price. So according to all schools of political thought, the grant of freedom to India is the only guarantee for her connection with Britain. Under the chapter "The Revolutionary Movements," the author deals with the rise and fall of the non-co-operation movement. Her usual urbanity and fairness fail her here and her treatment is marked by a want of sympathy. It is a pity that while writing this account she did not remember her own words on a previous page, "Let us now all work together for the common motherland and be rivals only in devotion to her," a fine sentiment easier

to express and advise than to practise and emulate. The book closes with an account of the ways and means for self-determination.

The book is throughout interesting and admirable as regards style and those who share Mrs. Besant's political views will have reason to be grateful for the support of so brilliant and persuasive an advocate.

R.

Rabindranath : His Mind and Art and other Essays ; by Kumud-nath Das, B.A., Indian Book Club, Calcutta

The book is a miscellaneous collection of Mr. Das's impressions of Rabindranath's poems and Bankim's novels with a foreword by Professor Sivaprasad Bhattacharya of the Presidency College and an essay on *Some Aspects of Rabindranath's Literary Work* by Professor Nripendra Chandra Banerjee. Mr. Bhattacharya says in his interesting foreword "young Kumudnath wrote much of this—while he was a student at Rajshahi and while he was still in his teens and what he has written shows fine taste and vast reading. His English renderings of the poems and his critical appreciations are of a high order " and we have no doubt that the hope of the writer of the preface that " with the advance in years and experience, he will continue to delight more and more increasing circle of readers and admirers," will be fulfilled.

R.

English Prose, Vol. V ; Mrs. Gaskell to Henry James (The World's Classics No. 223, price Two Shillings).

This is an excellent anthology of Nineteenth Century Prose covering an area of varied prose achievements which practically represent a sort of movement in English literature from 1810 to the end of the century indicating the characteristics of the new prose so suitable for short essays and lucid narratives.

A careful reader will discover here the landmarks showing how gradually the Latinised rhetorical style of the masters of prose in the latter half of the Eighteenth Century became replaced by an elastic, suggestive, vivid, graceful and humorous one favoured mainly by the novelists. This evolution is well illustrated by this little book, within its limits, especially in the selections from Gaskell, Brown, Thackeray, Dickens, Charlotte Bronte, Meredith, S. Butler and Henry James. Criticism proper finds its right place through Ruskin, Lowell, Arnold and Pater, and the historical prose of the new age is represented by Froude's " Early Protestants."

One may join issue here and there with the editor Mr. Peacock, who is an excellent judge and discriminating critic in this matter, as to the precise right of the selected piece to claim the honour of pre-eminently

representing its author; yet, on the whole, the anthology is quite representative in character, shows the editor's nice discrimination and sound critical judgment besides affording excellent reading to all lovers of good prose. It is no small recommendation that the volume is indeed cheap for its price.

J. G. B.

The Shantung Question; by Ge-Zay Wood, B.A. (Yale), M.A. (Harvard), pp. 372. Price Five dollars; Fleming H. Revell Company, New York, 1922.

The author is an educated Chinese and has been long resident in America. He was a member of the Chinese Delegation at the Washington Conference and had, therefore, unique opportunities of studying the question he deals with. The Shantung question offers an interesting study both from the point of view of international law and international politics. Mr Wood's exposition of his case is both lucid and able, and he has pleaded China's cause to the satisfaction of all impartial critics. The appendices will prove invaluable to those who want to examine the evidences on which Mr. Wood bases his conclusions.

S. N. S.

A History of Land Tenures in England; by J. Ghosh, M.A., Ph.D., Principal, A. M. College, Mymensingh; Published by Kar, Majumdar & Co., Calcutta.

Mr. Ghosh's History of Land Tenures in England is the first work of its kind by an Indian. For the choice of his subject the author has forestalled criticism by offering an apology in the Preface. Although I do not share his view that the study of land tenure of England—a system peculiar to that country—is of much practical use in solving the land problems or shaping the land policy of our country. I have no desire to doubt the sincerity of his conviction. The author has made bold to adopt a theme which rightly or wrongly, has attained a notoriety as a difficult, unpopular and even an unprofitable branch of study and has flung himself heart and soul into the spirit of the various epochs of a distant land that he depicts. To an average English student the history of Real Property of his country is more often than not a dull and dreary branch of learning which he would fain eschew. But Mr. Ghosh's love of adventure takes him beyond the seas and he finds fascination in "fresh field and pasture new." The work itself is the outcome of a fairly extensive and intensive study of the literature bearing on the subject in the course of which a considerable amount of foreign matter had to be assimilated. The result is a freedom

of movement and boldness of utterance such as could only come of a thorough mastery of the subject. Recognised views on the subject have been put forward and tested in the true spirit of research and adopted or rejected. In several cases, however, the author has no views of his own to offer apart from justifying or criticising those of others in his own way on available data. The book is admirably well-written. The exposition has various merits to commend itself. The dignity of the subject is combined with suavity of diction, economy in words with efficiency, brevity with lucidity, descriptiveness with narration of dry facts. Sometimes a world of ideas is crowded into a single sentence which, though compact, is never a heavy reading. The style seldom, if ever, suffers from affectation or lack of cohesion and invests a somewhat prosaic subject with a charm all its own which renders the whole an agreeable reading. The subject has received such a treatment in Mr. Ghosh's hand as can well claim the commendation of the discerning critic and the book can legitimately aspire to recognition as one of the standard works on the subject. Having regard to the quality of the work a bibliography and an index would be useful appendages to the volume.

SITARAM BANERJEE

Report of the Superintendent, Archaeological Survey, Burma
(For the year ending 31st March, 1922).

This small volume of some 63 pages contains the report of the activities of Mr. Duroiselle, the Superintendent of Archaeological Survey of Burma, for the year 1921-22. It also includes some interesting contributions from Maung San Shwe Bu, the Hony. Archaeological officer for Arakan and Maung Mya, the Archaeological Assistant. We will pass over the details connected with the office routine which cannot interest any scholar outside the Archaeological Department, but deal with matters of general importance, one by one. Mr. Duroiselle (pp. 5-6) has removed the so-called "Pillars of Victory" at Pegu from the list of Ancient Monuments to be maintained by the Imperial Government. He has raised pertinent objections to the identification of Kaśāram mentioned in the famous inscription of Rājendrachola I with (Śrī) Khettāra or old Prome in Deltaic Burma (*Ibid*, 1919, pp. 24-25). He is of opinion that the identification rests merely on 'fortuitous phonetical resemblance.' Following an old local tradition he takes the Pillars 'as commemorating the first emergence of this part of the country from the waves.' The subject being of great importance for the early history of Burma should engage the further attention of the scholars.

On pages 14-16 Mr. Duroiselle draws our attention to the images of the Earth goddess (*Wathundaye—Fasundharā*) found in Burmese pagodas. She is represented as "a gracious woman either standing or seated who having brought the thick tress of her hair over her left shoulder before her breast is in the act of squeezing water out of it." She is bearing witness to the Bodhisatta under the tree of wisdom not long before he became the Buddha. The images are important in view of the fact that this goddess

in this attitude has not yet been found in India, she being nearly always represented as emerging from the earth with a vase in her hand.

On pages 17 to 21 we are informed about some important discovery of frescoes on the walls of the Kyanzittha cave at Pagan. Some of them represent Mongol personages; others show a symmetrical pattern in which crosses occupy a prominent place. Mr. Duroiselle takes these to be unmistakably Christian crosses and infers the presence of a number of Christian warriors with Kublai Khans invading troops. It is unfortunate that no photographic plate of this fresco is furnished with the report and in the absence of this it is not possible for us to decide whether these signs on Buddhist cave walls have only ornamental significance or have a religious meaning. Even if the latter is true they might be a form of *Svastika* sign so common in Indian sculpture. In view of these facts we are disposed to agree with Mr. Lewisohn when he observes that the deduction of Mr. Duroiselle is rather a bold one.

In paragraph 38 is given a short guide to the city and palace of Mandalay 'the most imposing example of wooden architecture in the world.' This guide should prove instructive. Mr. Duroiselle has propounded an interesting theory about the pan-Asiatic character of these wooden places, a perusal of which will more than repay any scholar interested in Indian architecture. It may be added that the great wall round the city of Pataliputra was made of wood and so was probably the wonderful Maurya palace. This theory offers the only explanation to the remarkable lack of architectural remains in the Pre-Āśokan period.

In conclusion we would urge the necessity either of using diacritic marks or if this is expensive to use *devanāgarī* script in writing Sanskrit words and passages.

HEMCHANDRA RAY

The Cambridge History of India, Volume I. Ancient India, Edited by E. J. Rapson; Cambridge University Press.

We hail the present volume as a most valuable contribution to the study of India's past history. Nothing at all so elaborate and able has hitherto been written on the political, social, and economic conditions of Ancient India from the earliest times to the middle of the First Century A.D. It is only to be regretted that the history of the religious movements of the period, specially of the orthodox Hindu faiths, has hardly received the attention it deserves.

Unlike the Oxford History of India, the present volume is not the work of a single author, but is built up of chapters by specialists who have explored at first hand the main sources of information. The results obtained by these scholars have been co-ordinated, to a certain extent, by the editor who is no other than Professor Rapson of the University of Cambridge. The Professor needs no introduction to the student of Indian History. A

prince among orientalisists, he has always been noted for his well-balanced mind and catholic spirit. He works out every question for himself, yet without being excessively fond of novel theories. If the book is lucky in its editor, it is no less fortunate in securing the services of a brilliant galaxy of writers including such well-known names as Keith, Rhys Davids, Hopkins, Thomas, Barnett and Marshall.

The work contains no less than twenty-six chapters. A comprehensive summary of the historical information they furnish will fill a volume. We shall only content ourselves with noticing their salient features, and offering comments on certain matters of interest.

In Chapter I Sir Halford Mackinder gives a geographical description of India, as the foundation upon which to build the historical chapters which follow. In Chapter II the editor deals with the peoples and languages and the sources of history. In the following Chapter (III) Dr. P. Giles gives an interesting account of the primitive Aryans or 'Wiros' and throws out the suggestion that a habitat for the pre-historic Aryan stock could be found in the lands which are called Hungary, Austria and Bohemia. The next five Chapters (IV—VIII) are devoted to accounts of political, social and economic conditions as represented in the Vedic and Brāhmanic Texts and the earliest scriptures of the followers of Mahāvīra and Buddha. In the Chapters on the Vedas and Brāhmanas Professor A. B. Keith gives a valuable summary of the historical information that may be gleaned from those works. But we are not supplied with a foundation of ascertained chronology on which to raise the superstructure of dynastic history. In the Chapter on Jaina history Dr. J. Charpentier adopts the date 468 B.C. as the year of Mahāvīra's death, though he admits that the date is contradicted by a passage in the Buddhist *Digha Nikāya*. The Chapters on Buddhist India by Dr. T. W. and Mrs. Rhys Davids are very interesting and illuminating. We only beg to point out that the interpretation of the Pārāyana verse given on pp. 188, 189 is by no means satisfactory, and 'Māgadham puram' of the passage is a well-known secondary name of Girivraja (*cf.* Mbh. II, 20, 30. Goratham girimāsūdyā dadṛṣur Māgadham puram) just as Kāśīpura and Kosalapura are secondary names of Benares and Ayodhyā respectively.

In Chapters IX—XII Professor E. W. Hopkins deals with the Sūtras, Epics, and Law Books. It is interesting to note that the Professor no longer holds the view that the oldest heroes of the Mahābhārata were not of the Pāṇḍu family, but declares that 'a Mahābhārata without Pāṇḍus is like an Iliad without Achilles and Agamemnon.' The Professor's opinion has also undergone a change in another respect. In his *Religions of India* he held that 'The simple original view of Kṛishṇa is that he is a God.' But in the present volume he observes that 'both Rāma and Kṛishṇa appear to have been tribal heroes.'

In Chapter XIII the editor deals briefly with the Purāṇas and examines their historical value. He steers a middle course avoiding the Scylla of excessive scepticism as well as the Charybdis of inordinate credulity. His identification of ancient Vanga with Birbhum, Murshidabad, Burdwan and Nadia will, however, hardly be accepted by a Bengalee, and is contradicted by the evidence of the *Bṛikal Samhitā* which clearly distinguishes Vardhamāna (Burdwan) from Vanga.

In the next four Chapters (XIV—XVII) India is viewed in relation to Asia Minor, Iran and the Hellenic world. In Chapters XVIII—XX Dr. F. W. Thomas gives an account of the Maurya Empire. The chapters on Chandragupta and Asoka will be found very valuable by scholars, but we cannot but express disappointment that the story of the decline and fall of the Empire has not been dealt with adequately.

In Chapters XXI—XXIII we have an account of the Post-Mauryan period—the age of Magadhan disruption and of Śaka-Yavana-Pahlava invasions. It is not possible to discuss within the brief space at our disposal the many controversial matters treated in these chapters. We shall notice only a few of them. On pp. 521, 522 King Bhāgabhadra of Heliodorus' inscription has been identified with King Bhāgavata whose name appears in a fragment of a column found at Bhilsa. But the similarity of the first part of the two names is no proof of the identity of the two kings. The Purāṇic list of Śunga kings contains the name of a Bhadraka as well as that of a Bhāgavata. On p. 576 Professor Rapson reverts to the view formerly held by Bühler that the Āmohini votive tablet is dated in the year 42. He also attempts a solution of the chronological difficulties connected with the Vikrama era of 55 B.C., and the Śaka era of 78 A.D. The view maintained by him is that the eras in question mark the establishment of the Śaka and Kshāna suzerainties, and that the Vikrama era is identical with the so-called "era of Azes" supposed to be mentioned in the Taxila inscription discovered by Sir John Marshall. The inscription is dated thus :—

Sa 136 ayasa aśaśasa masasa divase 15.

Professor Rapson, following Sir John, takes *ayasa* as the genitive singular of a name Aya (=Azes), and places the record in the year 136 of an era founded by Azes. Curiously enough he follows a different method of interpretation in regard to another Taxila inscription, namely, that of Patika. The inscription of Patika is dated thus :—

Saṁvachharaye aśasatatimae 78 maharayasa mahatitasa Mogasa Panemasa Masasa divase padchame 5.

As has been pointed out by Sir John Marshall and Fleet, the words *Mogasa* and *Ayasa* have the same relative position in the two Taxila records. Rapson's interpretation of the passages taking one as meaning 'in the reign of Maues (Moga) and in the year 7 of some unspecified era,' and the other as meaning 'in the year 136 of the era of Azes' is hardly consistent.

As pointed out by Fleet, if *ayasa* is really the genitive singular of a name Aya or Azes, then on the analogy of every known early Indian record 'Sa 136 Ayasa' should be taken to mean not 'in the year 136 of the era of Azes' but 'in the reign of Azes, in the year 136 of some unspecified era' (cf. the passages 'in the year 51 of the great king Huvi-ka,' 'in the year 80 of the great king Vāsudeva,' 'in the year 72 of the Mahākshatrapa Rudradāman,' 'in the 96th year of the great king of kings, the glorious Kumāragupta.' Regarding these dates Bühler observed 'none has ever suggested either that any of these kings founded an era, or even that they reigned for 51, 80, 72, and 96 years. The statements simply place the records containing them in their reigns and in respectively the years

51, 80, 72 and 96 of the eras used by them,' and only the same interpretation will be justifiable in respect of the Taxila records.

There is no harm in placing Moga and Aya in the years 78 and 186 respectively of the same era, for we know from numismatic evidence that Aya (Azes) came after Moga (Maues). The relation between Aya and the Kushāna King of his inscription may have been similar to the relation between Hermaios and Kadphises I. The absence of an honorific title before the word Aya has however led many scholars to think that it is not the name of a king. But honorific titles are not attached to the name of Jayadāma in the Andhau inscriptions, and to that of Lakshmana Sena in the Jānibighā inscription.

In the penultimate Chapters (XXIV—XXV) Dr. Barnett deals with the early history of Southern India and Ceylon. On p. 599 he throws out the ingenious suggestion that the Sātavāhanas may be connected with the Satiya Putas mentioned by Asoka, and the Setae alluded by Pliny. His identification of Utkala with Ganjam is, however, contradicted by the evidence of the Raghuvamśa which places the Utkalas between the Kapiśā (Kasai in Midnapur) and Kalinga. The identification of Lāla with Lāṭa (Gujrat) is equally untenable. Lāla lay between Vanga (East Bengal) and Magadha (Geiger, *Mahāvamsa*, p. 51) and should, doubtless, be identified with Rājha, that is, West Bengal.

In the concluding chapter Sir John Marshall describes the monuments of Ancient India and traces the various phases of Indian Art from its beginnings to the First Century A.D. He is willing to concede an Indian origin to the 'primitive uniface image of Parkham,' the 'crude and ugly coins commonly known as Punch-marked' and the inferior class of reliefs at Bhārhut, but finds unmistakable indications of Perso-Hellenic influence in the 'modelling of the living forms of the Sarnath Capital,' and in the superior workmanship of the better class of reliefs at Bhārhut. This view is not, however, shared by many scholars.

We close our survey of the work with a reference to its maps and illustrations. Regarding the maps we need only point out that the identification of the Rikshavant with the Satpura range (map 5) is contradicted by all the Purāṇas including the Vāyu copy consulted by Alberuni. As regards the illustrations it is interesting to note that the famous Patna statues in the Indian Museum have been described as Yaksha figures, and not as representations of two Śaśunāga kings.

We rise up from a perusal of this book with a sense of the great service rendered to the student and the general reader by bringing together for the first time in a readily accessible form such a vast mass of information regarding the political and social history of Ancient India. We shall be glad to see the volume in the hands of every serious student of India's past history.

Shiva-Chhatrapati : by Surendranath Sen. Published by the Calcutta University.

This is an excellent English rendering of the *Sabhāsud Bakhar* one of the important sources of Maratha History. The work has been done with great accuracy and the volume before us is not merely readable but what is even more it is reliable and accurate. The value of the work is further increased by extracts from the *Chitni* and the *Siradigvijaya* as well as by learned notes at the end of the book and a useful Index. Mr. Sen's work should prove distinctly useful to those who cannot approach the original Marathi and we are sure it will win an honoured place in historical libraries by its intrinsic merit. The last paragraph of the preface ought to disarm all hostile criticism on the score of misprint. There are indeed a few errors left undetected but this blemish reminds us of the well known verse of Kālidāsa :

एकी हि दोषी गुणसन्निपति निमज्जतीन्द्रोः किरणेष्विवाङ्गः ।

POST GRADUATE

How to live long and healthy : by H. W. B. Moreno, Calcutta.

We have received a small book describing physical exercises at home which could enable a man, who could spare 15 minutes a day to "gain life and health." The diagrams are good and clear and there is a wall-chart as well. The exercises are well chosen and well arranged and need no apparatus. The hints on health given at the end are distinctly good. We can recommend this little thing to those getting on to forty and are in consequence apt to treat the physical body with a little more indulgence in matters of exercise.

BOOKWORM

The Magic Tree : by H. Chattopadhyaya (Shama's Publishing House, Madras : price Rs. 3/).

On the magic-tree are seated two birds, says the Upanishad, one of which eats the choice fruit the other only stares around. This well expresses the difference between the poet and the ordinary man. H. Chattopadhyaya, son of a gifted father and brother to the sweet-singing poetess, needs no introduction to our readers. The volume before us is thin as to size but full of thoughts deep enough to satisfy any man. He has the true poetic vision of the higher worlds. The ordinary man of the world stilled in the dust of the physical plane feels all the better for an occasional uplift into

the poet's realms above. We only hope that our young poet will give us more and more of his visions in the future years.

POST GRADUATE.

Surya Gita : by James H. Cousin, Ganes & Co., Madras.

A splendid volume of poems by one who is a recognised master of his art. Mr. Cousins unites in himself the Irish and Indian cultures and the combination is distinctly noteworthy. The volume before us consists of three distinct collections : "the Garland of Life," "Moulted Feathers" and "Surya-Gita." The first two have been already through their first editions and admirers of Mr. Cousins would surely be pleased to find them all collected in one volume. The *Surya-Gita* has also a few gems of Japanese workmanship. The best poem to my mind in this collection is "Myopia." This reminds one of the legend of Tulsidas who refused to bow to the image of Krishna with the flute but so great was the power of his devotion that the image changed to that of the archer Rāma. The next best poem to my mind is "the Giant and the Pomegranate," a distinctly fresh and quaint symbol. Let those who want to know more read the book itself. I am certain they shall not be disappointed.

POST GRADUATE

Eminent Orientalists : (G. A. Natesan, Madras, price Rs. 2.).

A useful little book both for the general reader as well as for the specialist scholar. Some of the names like those of Wilkins, Turner and Bornoah are getting rapidly forgotten and it is very proper that the public should know that they did eminent work in their time. Some very eminent names are left out but let us hope only to be incorporated into a second series : Schelgel, Roth, Grassmann, K. R. Kama, A.B. Keith, Cowell, Bournouf, Rawlinson, Lassen and many another. Mr. Natesan's series of biographies are always reliable and eminently interesting reading so that we are inclined to look upon this book as the first of a good long series of several volumes. Surely there are Indian scholars enough to undertake the biographical sketches of most of these great people. The get up and printing is quite up to Mr. Natesan's usual standard. But may we suggest the utility of pictures of these great orientalists ?

I. J. S. T.

Fiscal Policy in India; by Pramathanath Banerjee M.A. (Cal.), D.Sc., Econ. (London) of Lincoln's Inn, Barrister-at-Law, Minto Professor of Economics, Calcutta University. (Macmillan & Co. Ltd., Calcutta, 1922.)

The appearance of the work under review is extremely opportune at the present moment when the fiscal policy of India is under discussion. The subject-matter of the book may be divided under two main heads—historical and critical. In the historical portion the author traces the fiscal policy pursued in India from the days of the East India Company to the modern times. By an analysis of the Regulations passed by the three Presidencies in India he comes to the conclusion that this policy was one of protection. The protection, however, was against India and in favour of Great Britain. As an instance of this may be mentioned the Bengal Regulation IV of 1815 which specially favoured the imports of British products into India. Under this Regulation the maximum duty paid by British goods amounted to only 2½ per cent. It must be noted in this connection that the Indian products continued to be taxed heavily under the system of transit duties prevalent at the time. Laws similar to the Bengal Regulation IV of 1815 were passed also in the sister Presidencies of Bombay and Madras. Since the transfer of the administration of India to the British Crown a policy of free trade has been unwaveringly followed, with results well known to India. Such was the state of the tariff when on account of financial necessity caused by the World War the duties had to be successively raised since 1916.

The historical review thus set forth also forms the introduction to the author's main task, *viz.*, the question of the right fiscal policy for India. But before taking up that problem he surveys the theoretic opinions on the subject held by the classical school of Economists and by its opponents, the followers of the German Historical School and comes to the conclusion "that the tariff problem admits only of a relative solution." He urges for India a policy of industrial development to be brought about by means of Protection. But while thus advocating Protection he is keenly alive to the dangers of the remedy he proposes. He is not a theorist of the type of Simon Patten who urged a policy of Protection for America as a permanent measure to keep her dynamic or progressive. The author urges the need for "discrimination" (p. 160). Again on p. 161 we find the following "Protection ought to be afforded to only such industries as have a reasonable chance of successful development"—precisely the same precaution as has been suggested by the Fiscal Commission. He does not display that holy horror of international trade which is a marked characteristic of most of the literature or what passes by that name, on Protectionism. He suggests protection for the steel, sugar, paper, rubber, and a few other industries of India. With regard to cotton textiles he advocates a duty on the finer grades of cotton textiles. Protective duties however he considers one among many means available to the State for the development of industries. He advocates a policy of bounties specially when the interests of the different classes of manufacturers clash with one another (p. 172). The effect of import duties on price, the suitability of the export duties to India, the means of encouraging the cottage industries—these are also some of the questions discussed in the book.

The author urges the establishment of a Tariff Board and it is curious to find that his scheme for the composition of the Tariff Board is exactly identical with that proposed in the Minute of Dissent appended to the Report of the Indian Fiscal Commission. He is decidedly opposed to the scheme of Imperial Preference "which cannot be supported from the Indian point of view however desirable it may be from the standpoint of Great Britain" (p. 239). The book is a valuable contribution to the none too plentiful literature on the subject of the Indian fiscal problems.

ECONOMISTS

Vijayadharma Suri; by A. J. Sunavala, B.A., LL.B. With a prefatory note by F. W. Thomas, University Press, Cambridge, 1922, pp. 85.

In this ably written monograph of 85 pages the author tries to give a brief description of the life and work of Vijaya Dharma Sūri, one of the most revered and influential Jain teacher of the present day. Vijaya Dharma Sūri appears to be a happy combination of a monk and a scholar well-trained in Western critical principles. His energy, sincerity and open-mindedness attract admiration. By his services as a "mediator between Jain thought and the West" he has greatly furthered the cause of Jain studies both in the East and the West.

There are, however, certain inaccurate statements contained in the book. For instance, it is not quite right to say that "with the advent of Lord Mahāvira and of Lord Buddha, a reaction against this institution of animal sacrifice set in" (p. 47). The reaction set in long before the advent of either Jina or Buddha. The evidence of this reaction is contained in the Sruti literature of the Brāhmanas. In the *Cūṭāsmuktika Upanishad* (iii. 17. 4.) Ghora Āngirasa lays great stress on Abrahma, while in the *Mundaka Upanishad* (1. 2. 7.) the sacrifices are described as boats frail in truth and the fools who praise them are said to be subject again and again to old age and death. Again the author is on difficult ground when he expresses the opinion that the spread of the faiths of Buddha and Mahāvira meant the practical abolition of sacrifices (p. 50).

The book is well printed and neatly bound and on the whole a pleasant reading.

H. C. RAY

Ourselfes

DR. KRAMRISCH

Our readers are no doubt aware that Professor Adharchandra Mookerjee, the veteran educationist, made over to the University Rs. 9,000 in 1918 for the institution of a Lectureship for the annual delivery of a course of two lectures by a distinguished scholar on a selected subject connected with Letters or Science. A precedent for such a lectureship is furnished by the well-known Rede Lectureship in the University of Cambridge. The lecturer for 1920 was Dr. F. W. Thomas, Librarian of the India Office, whose subject was "India and History." The lecturer for 1921 was Sir William Pope, Professor of Chemistry in the University of Cambridge, whose subject was "The Atomic Theory." Miss Kramrisch, whose brilliant lectures on "Indian Art" we have already published, has been invited to deliver the Adharchandra Mookerjee Lectures for 1922. It is understood that her subject will be "The Contact of Indian Art with the Art of Other Civilisations." We hope to be able to publish the lectures immediately after delivery.

PROFESSOR MACDONELL

Professor Macdonell, Boden Professor of Sanskrit in the University of Oxford, who was appointed the First Stephanos Nirmalendu Ghosh Lecturer on Comparative Religion, on the foundation established by our distinguished Honorary Fellow, Rai Bahadur G. C. Ghosh, has been amongst us for some

weeks past. The course consisted of eight lectures and covered the following topics :

- Lecture (1) Introduction and primitive religion.
- „ (2) Religions of China and Ancient Persia.
- „ (3) Brahmanic Religion.
- „ (4) Buddhism.
- „ (5) Greek Religion.
- „ (6) Judaism.
- „ (7) Islam.
- „ (8) Christianity as the religion of humanity.

The lectures were delivered in the Darbhanga Library Hall and were attended by a large gathering of students and distinguished scholars. The lectures will shortly be published by the University. Our readers will no doubt recollect that the University conferred on Professor Macdonell the Honorary Degree of Oriental Learning last year, and we are glad to learn that the Asiatic Society of Bengal will shortly elect him as an Honorary Fellow.

PROFESSOR GARNER

Professor J. W. Garner also is amongst us, and is delivering his lectures on the "Development of International Law in the Twentieth Century" before a large body of students and distinguished scholars. His lectures are exceedingly attractive, as instead of reading out from manuscript he gives a remarkably lucid oral exposition. The Senate has unanimously conferred on him the Honorary Degree of Doctor of Law and the award has been confirmed by His Excellency the Chancellor. The statement of qualifications which was drawn up by the Syndicate on the occasion is set out below :

"Professor James Wilford Garner, M.A., Ph.D., has been Head of the Department and Professor of Political Science and International Law in the State University of Illinois for over sixteen years. He is the author of "Introduction to Political Science," "The Government of the United States," "Essays

in Southern History and Politics," "History of the United States," 5 Vols. (in collaboration with Senator Lodge) and "Civil Government for Indian Students" (in collaboration with Sir William Marris). His work on "International Law and the World War," published in 2 Vols. in 1920, in the series organized by Professor Oppenheim and known as "Contributions to International Law and Diplomacy," has placed his name in the front rank of authorities on the subject. The annotated version of the History of French Public Law by Professor Brissaud, contributed by Professor Garner to the "Continental Legal History Series" is a work of recognized value. Professor Garner was the Editor-in Chief, in 1911 and 1912, of the first two Volumes of the Journal of the American Institute of Criminal Law and Criminology. His contributions to leading American and European Periodicals on Political Science and International Law are too numerous for enumeration. In 1920, on the invitation of the University of Paris, Professor Garner delivered in French two courses of lectures before the New International School of International Law founded by Fauchille, Lyautey and Alvarez; the first series was on "American Political Ideas and Institutions"; the second series was on "Problems of Neutrality during the World War." He also lectured in the provincial Universities of France as Harvard University Lecturer on the Hyde Foundation. Professor Garner has further delivered courses of lectures at Cambridge, Brussels and Ghent on the invitation of the respective Universities."

DR. GHOSAL

Our congratulations to Mr. Upendranath Ghosal, M.A., of the Presidency College. His name has just been approved for the Degree of Doctor of Philosophy. The subject of his thesis was "Hindu Political Theories from the earliest times

to the first quarter of the Seventeenth Century." We understand that the thesis is in press and will be published forthwith.

SIR P. C. RAY.

Our readers are probably aware that Sir P. C. Ray was requested by the Senate to hold the Palit Chair of Chemistry for five years longer, in the interest of research. Sir P. C. Ray has agreed, but on terms which will not come as a surprise on those that are acquainted with his antecedents. Here is his characteristic letter :

"I beg to request you to convey to Governing Body of the College of Science my sincere thanks for the extension of my services on full pay for a period of five years. But as I have completed my 60th year, I feel I cannot accept any remuneration, and would therefore request you to utilise my salary from the month of September last onwards for the furtherance of the department of Chemistry (both general and applied), or for such other purpose as the Vice-Chancellor and the Governing Body may deem fit."

The Vice-Chancellor in laying this letter before the Senate eulogised the eminent services rendered by Sir P. C. Ray and his spirit of self-sacrifice; the Senate adopted the vote of thanks with acclamation. When the University has fallen on evil times, it is a consolation to all true friends of higher teaching and research that she can still count upon such a friend of world-wide reputation.

DACCA SECONDARY BOARD

We find from the Minutes of the Syndicate, dated the 27th October last, that the Syndicate have addressed the following letter to the Government of Bengal on the subject of the standard of Examinations conducted by the Dacca Secondary and Intermediate Board. We trust that the full

significance of the methods followed by the new authorities will not be lost upon those who are in raptures over the prospect of the establishment of a Board of Secondary Education for the entire presidency :

From Registrar, Calcutta University, to the Secretary to the Government of Bengal, Education Department, dated the 13th October, 1922.

I am directed by the Hon'ble the Vice-Chancellor and the Syndicate to forward herewith a copy of the "Rules of Examination" which were issued by the Dacca Secondary and Intermediate Board to the examiners who conducted its recent examinations, and to invite attention to the concluding provision of paragraph 4 which runs as follows :

"The percentage of passes should, as far as possible, reach the average level of Dacca in recent years."

Paragraph 2 provides that in drawing up the question papers the standard of the examinations of the Calcutta University must be strictly adhered to. Paragraph 4 provides that in examining the answer papers the standard of examination should be neither higher nor lower than that of the Calcutta University, or, in the case of the Islamic examinations, than that of the Education Department adopted in recent years. To these directions no exception can reasonably be taken, and sudden change of standard is to be deprecated. But the direction that the percentage of passes should, as far as possible, reach the average level of Dacca in recent years for those examinations is, in the opinion of the Hon'ble the Vice-Chancellor and the Syndicate, open to grave objection. The percentage of passes at an examination does not depend solely upon the standard of examination. The standard may remain fairly uniform, yet the percentage of passes may largely vary. Assuming that the standard remains constant, the percentage of passes must depend upon the preparation of the candidates, as also upon their attainments. Again, if we confine our attention to a single institution, it is clear that if all the circumstances remain invariable, the percentage of successful candidates may be made to vary from year to year by the

exercise of more or less care in the selection of candidates to be presented at the examination. When the percentage of passes at an examination is thus dependant upon a complex set of circumstances, it is not proper to instruct the examiners to examine the answer papers in such a way as to make the percentage of passes reach what is called an average level. It is important to bear in mind that the percentage of passes varies in the case of different institutions and even in the case of the same institution from year to year. This is well illustrated in the case of the schools and colleges within the jurisdiction of the present Board during the five years from 1917-1921.

Intermediate Examination (Arts)

	1917	1918	1919	1920	1921
Dacca College ..	41.1	70.6	77.8	76.8	75.6
Jagannath College	43.4	65.1	80.5	81.6	80.4

Intermediate Examination (Science)

	1917	1918	1919	1920	1921
Dacca College ..	58.1	68.9	83.9	92.4	90.6
Jagannath College	42.8	66.6	85.7	87.09	86.04

Matriculation Examination

	1917	1918	1919	1920	1921
Armanitola Government School	81.2	68.4	100	95	100
Collegiate School ..	92.06	90.3	90.7	95.6	100
East Bengal Institution	67.8	46	80.3	74.07	80.4
Eden Female School	83.3	100	100	100	100
Government Mowlem School	93.1	90.4	85.1	67.8	80
Imperial Seminary	90	65.7	85.7	45.9	72.7
Kisorilal Jubilee School	86.7	92.3	63.4	76.3	77.4
Pogose School	88.1	85.7	90.7	68.05	74.4
Ukil's Institution	85.1	35.9	58.6	55.8	60.6
Nabakumar Institution	...	55.5	28.5	70.5	72.09

The Hon'ble the Vice-Chancellor and the Syndicate are not able to appreciate how the examiners

in each individual subject can mark the answer papers allotted to them in such a manner that the ultimate result of the examination may reach what is called the average level of Dacca in recent years—unless, indeed, the instruction is interpreted to signify that as many of the candidates should be let through as possible. The gravity of the situation is intensified when we find that rule 7 invests the Examination Committee with apparently unlimited authority to alter the results, submitted by the examiners, in order to attain the desired object.

The Hon'ble the Vice-Chancellor and the Syndicate have been obliged to address the Government on the subject in as much as under section 7 of Chapter XVI of the University Regulations, they have to deal with applications from candidates who have been successful at the examinations held by the Dacca Secondary and Intermediate Board for admission into the affiliated colleges of this University. If the examinations held by the Board are conducted on the lines indicated in the concluding provision of rule 4, read with rule 7, mentioned above, the Hon'ble the Vice-Chancellor and the Syndicate must seriously consider whether the certificates given by the Board should be accepted or not.

APPENDIX

Rules of Examination

1. The Paper Setter after setting the paper shall show it to the Moderator and they shall in consultation make any alterations they think necessary and the Moderator shall forward the paper in its final form to the Secretary to the Board. If the Moderator is living in Dacca he should hand in the paper personally to the Secretary at his office; otherwise he should send it by post, registered and insured, addressing the Secretary *by name*. The questions shall be written on paper to be supplied by the Secretary.

2. In setting and moderating a paper it should be carefully borne in mind that this year the Board is simply carrying on the work of the Calcutta University. Under normal circumstances the candidates

who take the Examinations of the Board should have sat for other examinations for which they were preparing. Therefore *the standards of those examinations must be strictly adhered to* in drawing up the question papers.

3. The questions should be fairly distributed over the whole course. Alternative questions should be given.

4. When there are more than one Examiner on a paper they shall meet together on the day of the Examination with the Paper Setter, if possible, and draw up in writing a system of marking and report it to the Secretary to the Board. Examiners shall examine 10 papers out of every 50 together in order to make sure that uniformity of standard is maintained. They should also bear in mind that the standard of examination should be neither higher nor lower than that of the Calcutta University or, in the case of the Islamic Examinations, than that of the Education Department adopted in recent years; and the percentage of passes should, as far as possible, reach the average level of Dacca in recent years for those Examinations.

5. The time allowed shall be 100 papers a week and marks shall be brought in by weekly instalments together with the answer books. Results should be kept strictly confidential.

6. If an Examiner is unable for any reason to carry on his work duly, the Examination Committee may appoint another in his place.

7. If the Examination Committee, on the receipt of the tabulated marks, think that the standards of past years in Dacca town have not been adhered to, they shall take such further steps as they may think necessary to secure that result.

8. Papers of candidates who have failed in one subject only shall be re-examined without altering the standard of examination.

UNIVERSITY FINANCE

We reproduce below the Proceedings of the meeting of the Senate held on the 18th November, 1922, which will

furnish ample food for reflection to all thoughtful men. No comment is needed.

The Senate met, as convened by the Hon'ble the Vice-Chancellor under Section 3, Chapter I of the Regulations, for the consideration of the following requisition :

“ To

THE VICE-CHANCELLOR,

CALCUTTA UNIVERSITY.

Calcutta, the 14th November, 1922.

DEAR SIR,

We find that the *Bengalee* in its issue of this morning has reproduced an article on this University from the *Times Educational Supplement*, which contains an attack upon the administration of the University, based on the letter addressed to this University by the Government of Bengal on the 23rd August, 1922, and now under the consideration of the Senate. The *Bengalee* states that the article has been reprinted in its columns at the request of the Government of Bengal (Publicity Department).

The situation thus created is so grave that in our opinion the Senate should assemble without delay to enable it to consider the position and to take such action as may be necessary.

In these circumstances, we request you, under Section 3 of Chapter I of the Regulations to convene a meeting of the Senate as early as practicable.

Yours faithfully,

MAHENDRANATH RAY.

G. C. BOSE.

A. CHAUDHURI.

P. C. RAY.

KAMINI K. CHANDA.

J. MAITRA.

Members of the Senate."

The following notice of motion had been received from Sir Asutosh Chaudhuri :

“ That the matter be brought to the notice of His Excellency the Chancellor with the request that a full enquiry be made as to how the Publicity Department of the Government of Bengal

came to request the *Bengalee* to publish the article in the Times Educational Supplement relating to the financial condition of the Calcutta University."

The Hon'ble the Vice-Chancellor :—Gentlemen, this meeting has been convened under Section 3, Chapter 1 of the Regulations. On receipt of the requisition which has been circulated, it became incumbent upon me to convene a meeting. I found it stated in the second paragraph of the letter that the signatories were of opinion that the Senate should assemble without delay, and in the third paragraph I found the request that a meeting might be convened as early as practicable. I, therefore, felt that it was my duty to convene a meeting as early as practicable. Sir Asutosh Chaudhuri has given notice of a motion. I call upon him to place his motion before the Senate.

Sir Asutosh Chaudhuri :—Sir, the requisition on which this meeting has been called deals with the situation which has been created, and the situation is a grave one. Whatever may be said with regard to the Calcutta University, there is no doubt whatsoever that it is a great institution, that it is one of the greatest institutions of this country, and that the position of Bengal is due to it. Wherever I have gone, in England or in the Continent, the Calcutta University is recognised as the University of India. It has taken steps which other Universities have not taken so far. But I am not going to speak further as to the position it occupies in India, because we know all what it is. We have had difficulties and we are struggling against them. Some say that our system is at fault. Now gentlemen, the same charge has been laid against the Universities of Oxford and Cambridge. They are trying to modify their system. They are also in want of funds. Whether our management has been a good one or not is a matter which is under enquiry. The Auditor has made a report and that report has been sent to us for consideration; a Committee has been appointed which is going into the matter and it will answer, so far as practicable, from our point of view, as to what ought to have been done and what has not been done; if not done, why not done? These are matters which are under consideration. But it is strange that the Publicity Officer should go out of his way and take an extraordinary step, requesting a newspaper in this country to publish an article which is merely a matter of opinion from the "Times Educational Supplement." The "Times" undoubtedly occupies a high position among the journals. But it does not occupy the same position now as it did before. Whatever it is, we do not know what led the Publicity Officer to request the "*Bengalee*" newspaper to publish the opinion of the "Times." Now, gentlemen, look at what has happened. The Auditor's report was sent to us on the 26th August this year. We are considering the report; our report is now practically ready, and will be sent to Government as soon as it is accepted by the Senate.

Pending that, what business had anybody, not to speak of a responsible ministry, to rush into print about the matter and publish the observations of out-siders with regard to the University. I can quite understand that if a propaganda is being carried on against this University. This is a function which no ministry in any part of the world ought to take upon itself. Is it the policy of Government that the Calcutta University should be run down? If so, let Government proclaim it. It is not the business of a ministry to ensure circulation of an opinion expressed by other people unless it is prepared to accept that opinion as its own. It seems to me that the step which has been taken is a wrong one—it is an extraordinary one. An explanation ought to be forthcoming as to why the Publicity Officer has taken this step. The “Bengalee” is quite clear in its statement that it was requested by the Publicity Officer to publish the article. I do not know under what Minister the Publicity Office is.

The Hon'ble the Vice-Chancellor :—It is under the reserved department.

Sir Asutosh Chaudhuri :—Therefore in an unreserved manner it publishes an attack—a statement attacking the Calcutta University. Why the Publicity Office should have done so, we do not know. It was extremely improper on the part of the Publicity Officer to rush into print and practically make the comment in the “Times” a lever upon which to work against this University.

Continuing the speaker said :—The “Times Educational Supplement” is dated the 11th October of this year. I believe the mail steamer by which I came brought the paper and it arrived at Bombay on the 3rd November.

Mr. Herambachandra Maitra :—So you brought the paper with you.

Sir Asutosh Chaudhuri :—I did not send it to the Publicity Officer. It came with me, and it arrived in Calcutta on the 5th instant, unless an advance copy was obtained by the Publicity Office in some manner. The “Bengalee” published the article on Tuesday the 14th November. Therefore there was no time lost. Gentlemen, we need not enquire how the “Times” came to publish it. It is very curious that the article refers only to certain matters which are against us. It makes no reference to anything which is in our favour.

The Hon'ble the Vice-Chancellor :—We are not now concerned with the article.

Sir Asutosh Chaudhuri then formally moved the following resolution :—“That the matter be brought to the notice of His Excellency the Chancellor with the request that a full enquiry be made as to how the Publicity Department of the Government of Bengal came to request the *Bengalee* to publish the

article in the *Times Educational Supplement* relating to the financial condition of the Calcutta University."

Mr. Manmathanath Ray seconded the motion.

The Hon'ble the Vice-Chancellor:—I request the members to confine their speeches to the proposition in the Resolution and not bring in matters which are not relevant. The contents of the article in the "Times Educational Supplement" are not before us and they cannot be discussed here. As I read the motion, it asks the Senate to decide that this matter should be brought to the notice of His Excellency the Chancellor, with the request that he should make a full enquiry as to how the Publicity Officer of the Government came to request the "Bengalee" to re-publish the article.

Rai Chunilal Bose, Bahadur:—I think that we are not pursuing the right course in this matter. From the statement in the papers which has been circulated to us, as well as from the speech of the Hon. Mover of the resolution, it appears that we are proceeding on a certain statement made by the Editor of a paper which, so far as I see, we have not taken the trouble to verify. In the first instance, we should know how some papers make irresponsible statements which, when regularly scrutinised, are found not to be supported by facts. I have seen many instances in which charges against this University have been brought publicly in the papers and we know about them simply because they have been published in the papers. Sometimes we do not care to take any notice of them. It may be one of those cases; it may be that the over-zealous Editor of the paper might have made the statement without properly scrutinising the matter: if subjected to a searching enquiry, probably some other explanation will be forth-coming. My point is this. I think the Senate is rather a little premature in taking action in this matter at this stage. I am at one with the Hon. Mover of the Resolution that if the Government participate in action like this, their action is open to serious consideration. Our duty in the first place is to ascertain whether there is any truth in the allegation made by the paper. In my humble opinion the right course we ought to adopt is to ask the Registrar to address officially the Government of Bengal and ascertain how far the allegation made by the paper that the publication of the re-print was made at the request of the Publicity Department was correct. When we receive the reply from Government, then it will be time for the Senate to meet and consider this question and to adopt any resolution which it finds necessary and well-suited to the circumstances of the case. Before that, I think we are a little hasty in our action, if we accept this resolution to-day. After all, it is quite possible that Government will deny any responsibility in the matter. It may be, Government may very well say we cannot be responsible for any personal act on the part of the Publicity Officer. Therefore I say under the circumstances,

if Government disclaims any knowledge in the matter, we shall look very small and our energy, time and enthusiasm spent this evening will have gone for nothing. I would therefore earnestly urge upon the Senate to postpone consideration of this question and ask the Registrar to write to the Government of Bengal and ascertain the facts of the case.

The Hon'ble the Vice-Chancellor:—I wish to realise the precise position taken up by Rai Bahadur Dr. Chunilal Bose. The allegation made in the newspaper in question was this—"We have been requested by the Publicity Officer of the Government of Bengal to reproduce the following article, etc." Is it your point that it may be a mis-statement?

Rai Chunilal Bose, Bahadur:—Yes.

The Hon'ble the Vice-Chancellor:—The article appeared on Tuesday. I find the following in the issue of the paper this morning: "It caused us no little surprise to have received the request from the Publicity Officer for the publication in our columns of an ill-informed and bitter criticism of the 'Times' on the Calcutta University." There is the statement made on the 14th November; it is repeated on the 18th November that the Editor had received the request from the Publicity Officer. Is it your desire that we should ascertain whether it was a fact or not that he received such a request?

Rai Chunilal Bose, Bahadur:—Yes.

The Hon'ble the Vice-Chancellor:—Under what circumstances the request, if any, was made is the very matter upon which Sir Asutosh Chaudhuri proposes that an enquiry should be made by His Excellency the Chancellor.

Rai Chunilal Bose, Bahadur:—I am also for making an enquiry, but my method is different.

Sir Nilratan Sircar:—A question has been raised as regards the genuineness of any communication from the Publicity Department, Government of Bengal, to the Editor of the "Bengalee" and I feel myself under the necessity of placing the letter before you which has been handed over to me by the Editor who is deeply interested in the affairs of the University. The letter runs thus: D.O. No. 3895, Publicity Office, Bengal. Private. Dear Mr. : "I shall be extremely obliged if you could see your way to re-printing the accompanying extract from the 'Times of India's Educational Supplement' in an early issue of the paper. Thanking you in anticipation, yours sincerely, Sd. S. Sen Gupta. To the Editor of the 'Bengalee.'" To this was attached a type-written copy of the article.

Mr. H. C. Maitra:—The letter is marked "private"?

Sir Nilratan Sircar:—Yes.

Mr. H. C. Maitra:—How did it come to you?

Sir Nilratan Sircar:—The Editor handed it over to me.

The Hon'ble the Vice-Chancellor:—Are you connected with the "Bengalee"?

Sir Nilratan Sircar:—I have some responsible part in the management of the "Bengalee." The Editor asked me to place it before the Senate, if necessary, and I take the responsibility. The point is that whoever sent it to the "Bengalee" had two objects in view; one object was the re-publication of the "Times" attack upon the University in the "Bengalee," and the other object was to achieve the end of having that article widely circulated in India by keeping his hands unseen. He wanted to do it secretly.

[At this stage, Sir Nilratan Sircar handed the letter over to the Hon'ble the Vice-Chancellor.]

The Hon'ble the Vice-Chancellor:—You have placed the original letter in my hands. Do you authorise the Senate to send a copy of this to His Excellency the Chancellor, if the motion is accepted, so as to facilitate the enquiry?

Sir Nilratan Sircar:—I have been authorised by the Editor to do so.

Dr. H. Suhrawardy:—While speaking on his motion, Sir Asutosh Chaudhuri spoke of "Ministry in charge of the Publicity Office."

The Hon'ble the Vice-Chancellor:—We are concerned with the motion only and not with an expression that might have been used by Sir Asutosh Chaudhuri. I corrected him.

Sir Asutosh Chaudhuri:—I do not think I said it. If I said it, it was a mistake.

Dr. H. Suhrawardy:—It is a reserved department.

Sir Asutosh Chaudhuri:—That is why I said it acted in an unreserved way.

Mr. Jatindranath Maitra:—Is the Publicity Officer also Secretary to the Education Minister?

The Hon'ble the Vice-Chancellor:—We have no official information.

Mr. Jaminibhushan Ray:—After what we have heard from Sir Nilratan, I think the case is clear. No amount of speech is required to show to the Senate whether Government is implicated in the matter.

The Hon'ble the Vice-Chancellor:—If no speech is required, why do you make a speech?

Mr. Jaminibhushan Ray:—I shall do it in one minute. I want simply to say that I am very glad to support the motion of Sir Asutosh Chaudhuri so that we may request His Excellency to enquire into it.

Dr. H. Suhrawardy:—I am inclined to support the amendment of Rai Chunilal Bose, Bahadur.

Rai Chunilal Bose, Bahadur :—I moved no amendment. I simply made some observations.

Dr. H. Suhrawardy :—It is desirable that the action of the Publicity Officer may be referred to the Government of Bengal before the Senate considered the desirability of addressing His Excellency the Chancellor on the subject. There is no doubt that we have now got the letter. But still it is rather a curious and unusual procedure adopted by the Editor of the paper that though the letter from the Publicity Office has been marked "private," it has been allowed to be made public by the Editor of the "Bengalee."

The Hon'ble the Vice-Chancellor :—We are not concerned with journalistic ethics here.

Dr. H. Suhrawardy :—But we can take action on journalistic indiscretion.

The Hon'ble the Vice-Chancellor :—I desire to state that we have no right to address the Government of Bengal in the reserved department, as to what may or may not have been done by the Publicity Officer. The Chancellor of the University is the Head of the Government of Bengal. If any action is to be taken, the proper course is to place the communication before the Chancellor. If he should take any action at all, it is for him to decide what action to take.

Mr. G. C. Bose :—I am a signatory to the requisition. I do not know whether it is relevant on my part to ask if the "Bengalee" was the only paper which was asked or requested to publish the matter, or whether any other paper also was similarly requested. I have information with me which if you wish I can place before you. I want to know the opinion of the Vice-Chancellor if it is not out of order.

Mr. H. C. Maitra :—Information is always welcome.

The Hon'ble the Vice-Chancellor :—If you are prepared to do what Sir Nilratan Sircar has done and hand over to me any letter that may be with you, you can speak. But if you simply desire to state what you have heard, then it will not be relevant.

Mr. G. C. Bose :—I have not the letter with me.

The Hon'ble the Vice-Chancellor :—Then you should not deal with the matter.

Mr. M. N. Banerjee :—I am of the same opinion with Rai Chunilal Bose, Bahadur. Of course from what we have heard from Sir Nilratan Sircar who has produced the D. O. letter, the only question that arises is whether we should accept the D. O. letter and can rely on it. The late Dr. Sarvadhikari relied a great deal on a D. O. letter from Government. But he was told that it was a D. O. letter and not an official letter. So I think we should not take action without going into the facts in detail and ascertaining the truth.

Mr. Khuda Buksh :—I do not understand the difference between a D. O. letter and an official letter. The letter was sent officially to the Editor of the "Bengalee." You have also the

information before you. One thing is perfectly certain that the Publicity Officer has done things which should not have been done. If he wanted to criticise, the best course would have been to send the criticism to the University. This sort of action is not commendable on the part of Government. Government ought to have sent the article in the "Times Educational Supplement" to the Vice-Chancellor. To lend countenance to the practice of circulating broadcast a hostile criticism of the University by sending the letter to the Editor is not worthy of any officer or any office. We should not hesitate to take action now. We ought not to wait and consider whether there is truth in the allegation. We have conclusive evidence. The action of the Senate is perfectly proper and the motion is perfectly just and suited to the purpose.

The Hon'ble the Vice-Chancellor :—From what has fallen from Rai Bahadur Chhunilal Bose, Sir Asutosh Chaudhuri, Dr. Surhawardy and Dr. Banerjee and from a careful reading of the motion, it strikes me that the proper phrase in the motion is not the "Publicity Department" but the "Publicity Office" of the Government of Bengal. Probably "Department" is too comprehensive and as is suggested, an enquiry may show that no one in authority knows anything about it, that it was not done by anybody in authority, but that it might have been done by some mischievous officer. The action taken by the Senate will give Government an opportunity to say so.

Sir Asutosh Chaudhuri :—I should like to put in "Publicity Office" in place of "Publicity Department."

Leave was granted.

Mr. M. N. Banerjee :—We should address the Governor as Chancellor and not as Governor of Bengal.

Sir Asutosh Chaudhuri :—It is Chancellor in the resolution and not the Governor of Bengal.

Mr. Manmathanath Ray :—Whether the *Bengalee* is guilty of journalistic impropriety or not, or what is the implication of a D. O. letter, we need not consider. But we ought to say this that the *Bengalee* has done a real and a great service to the public by bringing to light the secret workings of the Government of Bengal against the University.

The Hon'ble the Vice-Chancellor :—The "*Bengalee*" requires no certificate from you.

Professor Hiralal Haldar :—We live to learn. In our younger days, propagandism by Government other than what is involved in the ordinary course of party warfare was unknown. In those days the ways and methods of Government were aristocratic and dignified. Particularly since the war, propagandism by one country against another—the propagandism by the Allies against Germany and *vice versa* has become somewhat common. Before now, however, nobody has ever heard of the Government of a country conducting a campaign against an institution of that country itself.

The Hon'ble the Vice-Chancellor :—You are making an assumption.

Professor Haldar :—But that is true.

The Hon'ble the Vice-Chancellor :—Do not make any assumption. When you have found out the facts, you will have ample opportunity to make comments.

Professor Haldar :—Then it will be a phenomenon of scientific interest.

The Hon'ble the Vice-Chancellor :—We shall investigate the phenomenon.

The motion as altered was put to the vote and carried, only two members dissenting.

Mr. Khuda Buksh :—Names of those gentlemen who are opposed to the motion should be recorded.

Mr. Manmathanath Ray :—Their names should be sent up to Government, for such action as the Government might think fit.

The Hon'ble the Vice-Chancellor :—(to Mr. M. N. Roy) Mr. Roy, you have no right to speak in that strain. Every honest man is entitled to speak out his own views.

Mr. Manmathanath Ray :—I apologise, Sir.

Rai Chunilal Bose, Bahadur :—(to the Hon. the Vice-Chancellor) Thank you very much, Sir, for your kind protection.

The Hon'ble the Vice-Chancellor :—Mr. Dutt of the Murarichand College, Sylhet, has sent a telegram regretting inability to attend this meeting but signifying his full concurrence in the object of the meeting.

NOTE

The following is a copy of the letter mentioned above :

Telephone No. 505 Regent.

GOVERNMENT OF BENGAL.

D. O. 3895.

PUBLICITY OFFICE, BENGAL,

5, Esplanade Row, West,

CALCUTTA :

11th November, 1922.

Private.

DEAR MR. ROY,

I shall be extremely obliged if you could see your way to reprinting the accompanying extract from the "Times of India Educational Supplement" in an early issue of your paper.

Thanking you in anticipation.

Yours sincerely,

Sd. S. SEN GUPTA,

11/11.

P. C. ROY, Esq.,

Editor, Bengalee, Calcutta.

PROFESSOR RAMAN

The brilliant researches of Professor Raman as outlined in a paper recently communicated by him to the Royal Society of London and in his tract on the *Molecular Diffraction of Light* published by our University Press have attracted widespread attention in the scientific world. Special notices have appeared in *The American Journal of Science*, *The Franklin Institute Journal*, *Kolloid Zeitschrift* and other well-known periodicals. We reproduce the following from three of these papers:—

*

Journal of the Franklin Institute (October, 1922).

Molecular Diffraction of Light.—By C. V. Raman, Palit Professor of Physics in the Calcutta University. 103 pages, 8vo. Printed by Atulechandra Bhattacharyya at the Calcutta University Press, 1922.

This book, a product of scientific activity at the Calcutta University and dedicated to the Vice-Chancellor, Sir Asutosh Mookerjee, attests the generous response of the Asiatic mind to the stimulus of western physical thought. The recent pages of the *Philosophical Magazine* have borne ample witness to the value and diversity of this reaction.

Such a volume as this cannot but be welcomed wherever throughout the world there is interest in understanding the phenomena of light. The author presents as the subject of the book the important question "Does any departure from perfect regularity of the light-propagation arise from the discontinuous structure of the medium?" and holds so well to the course he has laid out for his discussion that the reader who has followed the nine short chapters with comprehension feels himself to have advanced through familiar ground up to the very frontiers of the subject and, in addition, to know in just what direction to look for extensions of territory. Would that more physicists found time and inclination to write reports on the present status of limited fields of investigation with which they are familiar and in which they have made important contributions!

In gases the accepted theory of molecular diffraction is that proposed by the late Lord Rayleigh for the explanation of the blue of the sky. "The individual molecules in a gas through which the primary waves of light pass are regarded as secondary sources of radiation, each molecule acting more or less as it would in the absence of its neighbours." The

mathematical development of this principle by its proponent leads to a relation between the wave-length of the incident light, the index of refraction of the medium and the intensity of the diffracted light that in the main explains in a satisfactory manner a large body of observed phenomena. The author examines the correctness of certain assumptions made in the derivation of this relation and concludes that their validity rests on (1) "the conditions being such that the compressibility of the medium is given with sufficient accuracy by Boyle's Law" and on (2) "the complete non-uniformity in the spatial distribution of the molecules in so far as very small volume elements are concerned."

In the second chapter are presented experimental results of the study of the scattering of light by gases. There is a marked difference between the polarisation of the scattered light as predicted from the Rayleigh theory and as actually observed. Rayleigh accounts for this by assuming that the molecules possess three axes of symmetry and are oriented at random. Others have sought an explanation by using the Bohr-Sommerfeld model of the molecules but with little success.

When we come to the chapter on "Atmospheric Scattering and Twilight Phenomena" it is interesting to note how many references relate to American work. Abbot and Fowle, Luckiesh in the Journal of the Franklin Institute, Kimball and W.J. Humphreys are among these cited. With the last named, the author is in positive disagreement on one point. Humphreys holds that the conditions of the sky at dawn and sunset are so complicated that a rigid analysis leading to an adequate explanation of the light effects then occurring can scarcely be hoped for. Raman, on the other hand, states that twilight is due to the illumination of the dust-free upper portions of the atmosphere by sunlight which in its course has not traversed the dusty lower air, and claims that "We are entitled to regard the problem as one of practically simple, molecular diffraction, and the complications arising from secondary scattering are far less important than might be imagined. Sufficient work has been done, however, to show that the problem of twilight, at least in its essential features is capable of being subjected to numerical computation of intensities from theory for detailed comparison with the observations."

Lord Rayleigh as long ago as the end of last century emphasized the inapplicability of his theory of molecular scattering of light to the cases of liquids and solids. In the face of this some recent investigators have suggested that the theory mentioned may none the less be applied to liquids. The author combats the propriety of this basing his objections on the failure of liquids to conform to Boyle's Law in their pressure-volume

relations and further on their departure from the condition of complete non-uniformity of spatial distribution. The molecules of a liquid occupy in actuality a larger fraction of the volume of the containing vessel than do the molecules of a gas at ordinary pressure in the same vessel. In the former state, therefore, the molecules have less opportunity to depart from uniformity of distribution than in the latter. Since then the scattering of light by liquid molecules cannot be explained by Rayleigh's theory, recourse is had to the "theory of fluctuations" developed by Einstein and Smoluchowski, where in the scattering of light is attributed not to the action of individual molecules, but to small local variations of density brought about by the heat agitation of the molecules. The formula for the intensity of scattered light derived from this theory is more general than that of Rayleigh. In fact, it reduces to the latter when certain relations characteristic of gases are introduced into it. An account is given of an attempt to compare values of intensity derived from the formula with observed values. In spite of the difficulty of getting a specimen of water free from motes, a satisfactory agreement was found. Yet this formula, which holds for such different conditions of matter as gas at ordinary pressure, gas near the critical point and a liquid, seems to cease to hold when the attempt is made to apply it to saturated vapors below the critical temperature. Careful experiments are greatly needed either to establish or to remove this discrepancy. Such experiments are now actually in progress.

The color of the sea is treated in a separate chapter and experiments of so interesting a character are described that it would seem a loss of opportunity for any physicist hereafter to take a voyage without a Nicol in his baggage. In the July, 1922, number of this Journal, page 106, there is given some account of Raman's work on the color of sea water. He concludes that "The blue color of the scattered light is really due to diffraction, the selective absorption of the water only helping to make it a fuller hue."

The study of the scattering of light in crystals is in its incipency. The effect has been observed in quartz, rock-salt and ice. Quantitative measurements are now being made in the Calcutta laboratory. Very little is known about the relations of amorphous solids to the scattering of light. Optical glass has a scattering power 300 times as great as that of pure air according to Rayleigh.

In the final chapter the relations of molecular diffraction to the quantum theory of light are discussed, "In the year 1905, Einstein put forward the hypothesis that the energy of a beam of light is not distributed continuously in space but that it consists of a finite number of localized indivisible

energy-bundles or 'quanta,' capable of being absorbed or admitted only as wholes. The theory had some notable successes to its credit, especially the prediction of the photo-electric equation and the explanation of the phenomena of ionization of gases by X-rays. Nevertheless, it has been felt that very serious difficulties stand in the way of its acceptance." It is pointed out that this theory of Einstein lends itself well to an explanation of the experimentally found quantity of scattering in a highly compressed gas. Should it become established that the scattering mentioned is consistent quantitatively with the Einstein-Smoluchowski theory, then this, which is based on a continuous distribution of light energy through space, may need to be abandoned in favor of the quanta theory.

The book abounds in suggestions for fruitful experimentation. There is perspective in its treatment. One does not lose sight of the woods in looking at the trees.

Nature (October 14, 1922).

Molecular Diffraction of Light. By Prof. C. V. Raman. Pp. xx 103. (Calcutta: University of Calcutta, 1922).

Readers of *Nature* are already familiar with the important work which Prof. C. V. Raman has been carrying out in connexion with the scattering of light by small particles, for many of his results have been announced in these columns. In a small volume published by the University of Calcutta he has reviewed the present position of the subject of molecular diffraction of light, and has discussed the theory in a comprehensive survey which includes the case of gases, vapours, liquids, crystals, and amorphous solids.

Lord Rayleigh was the first to indicate the principles on which the problem may be handled, and he obtained a relation between the scattering power of the molecules of a gas, their number per unit volume, and the refractivity of the medium. As the energy scattered must be derived from the primary beam, the intensity of the latter must suffer an attenuation as it passes through the medium, and an expression can be derived for the attenuation co-efficient. Prof. Raman discusses some criticisms of the theory and concludes that the principle of random phase which is assumed in the argument is justified, provided there exists the random distribution of the molecules which is required by Boyle's law. The ultimate justification of the principle rests on the complete non-uniformity in the spatial distribution of the molecules in so far as very small volume elements are concerned.

The first successful attempt to observe the scattering of light by dust-free air in the laboratory was made by Cabannes in 1915. Experimental work of great interest has been carried out by Prof. R. J. Strutt (the present Lord Rayleigh), who obtained the remarkable result that, in many gases, the scattered light is only partially polarised. This may be explained as due to the lack of symmetry of the molecules, and may furnish valuable information with regard to molecular configuration.

To the late Lord Rayleigh we owe the brilliant suggestion that the scattering of light by the molecules of air accounted in large measure both for the blue light of the sky and the observed degree of transparency of the atmosphere. Recent observations, principally at the Observatory on Mount Wilson, have confirmed the theory and have furnished a value for Avogadro's constant which is practically identical with that deduced from Millikan's measurements of the electronic charge. Prof. Raman has made observations on the polarisation of skylight on Mount Dodabetta (8,750 feet above sea level) in the Nilgiris. As is well known, dust and haze are largely confined to the lower levels of the atmosphere. The influence of secondary scattering may be reduced very considerably by using a deep red filter, and allowance can be made for the effect of earthshine. The weaker component of polarisation was found to have 13 per cent. of the intensity of the stronger component. Only 4 per cent., however, was ascribable to molecular anisotropy, a result in good agreement with the latest laboratory measurements.

The principle of random phase on which Rayleigh's theory depends is not applicable in the case of highly condensed media such as dense vapours, liquids, and solids. In liquids, we may apply the theory developed by Einstein and Smoluchowski, in which scattering is considered not as due to individual particles but to small local variations of density arising from the heat movements of the molecules. A formula is obtained showing how the scattering power of a fluid is related to its refractivity. It is worthy of notice that the scattering power is proportional to the absolute temperature and to the compressibility of the liquid. When corrected for the effect of molecular anisotropy, the formula gives results in fair agreement with observations in non-fluorescent liquid, and it reduces automatically to the Rayleigh formula in the case of gaseous media. But, surprisingly enough, the law seems to break down in the case of gases under high pressure. Prof. Raman makes the interesting suggestion that this failure may mean that the continuous wave theory of light does not strictly represent the facts, and that we may perhaps find here experimental

support for Einstein's conception that light itself consists of quantum units.

The colour and polarisation of the light scattered in the sea is discussed by Prof. Raman in a chapter which must interest biologists as well as physicists. The colour of the deep sea is not mainly due to reflected skylight, as has sometimes been suggested, but to light molecularly diffused from within the water. The reflecting power of water at normal incidence is quite small (only 2 per cent.) and consequently to an observer flying at a great height above the surface of the water the luminosity of the sea would be determined almost entirely by internal scattering.

In crystals such as quartz and rock-salt the scattering of light can be observed visually, the Tyndall cone being of a blue colour. The effect may be attributed to the thermal movement of the atoms in the crystal introducing local fluctuations of optical density. Thus there is a close connexion between this phenomenon and the well-known influence of temperature ("Debye effect") on the intensity of X-ray reflection as illustrated, for example, in the experiments of Sir W. H. Bragg on rock-salt. It may be suggested that further study of the scattering of light in amorphous solids like glass would yield information of value regarding the molecular structure of such bodies.

The Geographical Journal (September, 1922).

The Colour of the Sea :

In a paper "On the Molecular Scattering of Light in Water and the Colour of the Sea" (Roy. Soc. Proc., Vol. 101, pp. 64-80), Professor C. V. Raman of Calcutta gives the results of some novel experiments carried out by him which are of great interest not only to physicists, but to all students of the Earth in its picturesque aspects. Prof. Raman's elucidation relates only to clear blue water, uncontaminated by the sediment which is found near the shore. When observed from the deck of a ship the apparent colour of the sea is, of course, partly due to the light reflected by it from the sky. Prof. Raman is however concerned here mainly with the other part, the light which has gone down into the deep water and without reaching the bottom has somehow come up and out again. One may observe this light by looking perpendicularly upon the surface of the water. For, in common with transparent substances in general, water reflects least when light strikes it perpendicularly; a fact which one may easily confirm by means of a piece of glass and a candle flame. Thus during the Challenger Expedition the light rising from the water was examined by looking

through the glass bottom of a floating tub. Prof. Raman has however devised a more convenient and more thorough means of eliminating the light reflected at the surface, by taking advantage of the fact that light which has been reflected from water at an angle of 53° to the line perpendicular to the surface is "polarized," that is to say its vibrations lie all in one plane containing the ray. Sieves through which such light will not pass are commonly constructed from certain crystals—tourmaline or calc-spar. By the use of such a sieve, called the "Nicol" prism, Prof. Raman was able to observe, in the deeper parts of the Mediterranean and Red Seas the light coming out of the water unmixed with any light reflected at the surface, and he found it to be of a vivid blue colour. The origin assigned to this blue light is perhaps the most interesting thing in the paper. It is a familiar fact that when two different liquids, say, water and lime juice, are stirred together, the mixture while yet imperfect usually appears slightly opalescent, that is to say it scatters the light. Now Einstein and Smoluchowski have shown that a single liquid can exhibit a similar opalescence because the molecules of the liquid, in rushing hither and thither with the motion that gives us the feeling of temperature, form passing clusters and leave corresponding momentary emptinesses which, taken together, give the single liquid somewhat the character of a mixture. Smoluchowski has observed this opalescence near the critical temperature and pressure at which a liquid and its vapour become indistinguishable. For water this critical state occurs at 365° C. and 195 atmospheres. The novelty in Raman's treatment is that he applies the same theory to explain the scattering of light by water at ordinary temperatures and pressures.

The theory indicates that, volume for volume, water at 30° C. should scatter light 159 times as strongly as dust-free air under standard conditions. Raman compared in the laboratory the brightness of the blue light scattered by distilled water, which had been kept for a fortnight to allow the last traces of dirt to settle, with the light scattered by saturated ether vapour, which in turn had been compared with clear air by the late Lord Rayleigh. In this way the ratio which theory put at 159 was found experimentally to be 175. In so new a region of investigation this must be accounted as a pleasing agreement.

The paper also contains a discussion of the appearance of the sea, either calm or ruffled, when viewed in various directions and under various skies.

It is a matter for genuine regret that the University which has given facilities for first class original work to men

of the type of Professor Raman has not yet been able to secure that willing assistance from the public funds which it so pre-eminently deserves.

ANTHROPOLOGY

When the study of Anthropology was introduced into this University at the instance of Sir Asutosh Mookerjee, there was abundance of unintelligent criticism in a section of the Press. Our readers will, we are sure, be pleased to read the following extract from the Presidential Address delivered by Professor H. J. E. Peake before the Anthropology Section of the Hull meeting of the British Association for the Advancement of Science, 1922. Professor Peake not only emphasises the importance of the subject in India, but refers to the work accomplished in this line by our University.

The time seems to have arrived when anthropologists should not concentrate so exclusively upon these lowly cultures, but might carry on their researches into those civilisations which have advanced further in their evolution. Not that I wish to deprecate in any way the study of backward peoples, or to discourage students from researches in that direction; but I would suggest that some anthropologists might initiate a closer inquiry into the conditions of more civilised peoples in addition to the studies already described.

We have in the Old World three great centres of culture, each of which has been in the van of progress, and each of which has contributed to the advance of the others. These are the civilisations of China, Hindustan, and what I will call the European Region.

Though our relations with China and Japan have been intimate for several generations, and many of our compatriots are familiar with both countries, it is surprising how little we know of either of these people from the anthropological point of view. This is the more to be regretted since for more than half a century Japan has been adopting features from Western civilisation, while there are signs that the same movement is beginning in China. So far those who have made themselves familiar with the languages of the Far East have studied the art, literature,

philosophy, and religion of these regions, rather than those aspects which more properly belong to our subject.

What concerns us more nearly in this country is the Indian Region. Here we have a well-defined province, peopled by successive waves of different races, speaking different languages, and with different customs and beliefs—an apparently inextricable tangle of diverse elements in various stages of cultural evolution. A vast amount of material has been gathered in the past, though such collecting has not been proceeding so fast during the last generation; but basic problems are still unsolved, and seem at times well-nigh insoluble. Perhaps it is this superabundance of material, or it may be the apparent hopelessness of the task, which has diminished the interest taken in these studies during the past few years. *This attitude is regrettable, and the only redeeming feature is the extremely active and intelligent interest in these problems now taken by various groups of Indian students, especially in the University of Calcutta.*

I have suggested that perhaps the lack of interest in such matters among Anglo-Indians, and especially among members of the Indian Civil Service, may be due to the apparent hopelessness of reaching a solution of any of the problems involved. It may also be due to the fact that they are sent out from this country to govern a population with different cultures and beliefs, and traditions wholly unlike those of this continent, without having received in the most cases any preparation which will enable them to study, appreciate, or understand an alien civilisation. Thus they misunderstand those among whom they are sent, and are in turn misunderstood. Guiltless of any evil intent, they offend the susceptibilities of those among whom their lot is cast, and acts are put down to indifference which are only the product of ignorance. After making their initial mistakes the more intelligent set to work to study the people committed to their charge, but faced with problems of extreme intricacy, and without any previous training, more often than not they give up the attempt as hopeless.

The candidates for the Indian Civil Service should receive a full training in anthropology before leaving this country has been pleaded time after time by this Section and by the Anthropological Institute, and though I repeat the plea, which will probably be as useless as its predecessors, I would add more. The problems confronting the anthropologist and the administrator in India are of such extreme complexity that it needs a very considerable amount of combined action and research even to lay down the method and the lines along which future inquiries should be made. Such

a school of thought, such a nucleus around which further research may be grouped, does not yet exist ; the materials out of which it can be formed can scarcely yet be found.

Yet until such a nucleus has been created, and has gathered around it a devoted band of researchers, no true understanding will be found of the problems which daily confront both peoples, and the East and the West will remain apart, subject to mutual recriminations, the natural outcome of mutual misunderstanding.

One solution only do I see to this dilemma. For many years past there have been institutions at Athens and Rome, where carefully chosen students have spent several years studying the ancient and modern conditions of those cities and their people. By this means a group of Englishmen have returned to this country well informed, not only as to the ancient but the modern conditions of Greece and Italy. Besides this we have had in each of the capitals of those two States an institution which has acted as a centre or focus of research into the civilisation of those countries. Although the main objects in both cases have been the true understanding of the cultures of the distant past, the constant intercourse of students of both nationalities working for a common end has resulted in a better understanding on the part of each of the aims and ideals of the other. I have no hesitation in saying that the existence of the British Schools at Athens and Rome has been of enormous value in bringing about and preserving friendly relations between the people of this country and those of Greece and Italy—" *Nature*," 14th October, 1922.

We reproduce here a paper on the present position of the Calcutta University and the cause of Higher Education by Sir P. C. Roy :

The indifference, with which the present condition of the Calcutta University is being regarded by the Government and the public of Bengal is sure to chill the enthusiasm of the most optimistic of us regarding the future of higher education in this unhappy land. Many of us, who have followed with keen interest the development of the Calcutta University as a teaching institution of the front rank, are now asking themselves whether we are not heading for a crash of the whole structure. I hold no brief for the faults of omission or commission of which the University authorities might have been guilty during the last few years. No one can deny that

unbiased criticism of public institutions is always desirable and has a healthy effect.

To me it appears, however, that every unprejudiced Bengali cannot help considering with satisfaction the unique development of the Calcutta University as a teaching institution of the highest promise. With all their defects, the Post-Graduate departments of the University have afforded manifold opportunities to the hitherto pent-up enthusiasm of our youthful scholars, zealous to contribute something to the world's stock of knowledge and thus to raise the status of our country in the scale of the intellectual nations of the world. Only a few years ago, one, who had obtained a certain percentage of marks in one of the University Examinations, was dubbed a 'scholar' and he carried his distinction throughout his life. This could not be otherwise when "scholars" were only required to measure their achievements in terms of the pay they could earn in Government jobs. All that is gone now, undoubtedly for the better. A scholar is now judged by the merits of his contributions to and by his capacity to keep in touch with the progress of knowledge. One must admit that this rational change in the outlook of our scholars has been to a large extent due to the unsparing efforts of the present Vice-Chancellor. As one who has been attempting in his humble way towards this transformation sometime before the inception of the Post-Graduate scheme, I think, I may be permitted to emphasise that what a few of us were individually trying to achieve against great odds in seclusion, has been given a leavening impetus by the authorities of the University.

When I signed the report of the Post-Graduate Committee appointed by the Government of India I had the feeling that greater facilities and a wider scope would be given to our rising generations for research and intellectual pursuits. The Post-Graduate organisation of the University was in the scheme of the normal development of higher education in this country. The constituent Colleges with one or two solitary exceptions have not sufficient funds to equip up-to-date seminars and laboratories or to pay for the proper staff of teachers in at least the most important departments. The difficulties we had to contend with in keeping up our pursuits of scientific research are still fresh in my memory and I almost feel tempted to envy the increased facilities which the University has already been able to throw open to our youths. For this we must thank the generosity of far-sighted public men like the late Sir Taraknath Palit and the late Sir Rash Behary Ghosh, who realised the supreme need of higher scientific training and research. There are many other smaller but significant endowments made over to the University during the past few years.

I shall cite however one glaring instance of the apathy with which the Government have treated the efforts of the University to promote higher education, namely, that of the College of Science. The endowments of Palit and Ghosh together with that of the Raja of Khaira, which has been recently obtained through the efforts of the present Vice-Chancellor, come up to about half a crore of rupees. To these funds the University has added twelve lacs of rupees from its fee funds during the past seven years and have succeeded in founding the University College of Science. During the short period of seven years of its existence, it has established a record of which our country ought to be proud. I joined the College of Science in the hope that the greater facilities and freedom of research would enable me to see in my lifetime the realisation of one of my visions—namely, the growth of scientific research in our people. Subsequent events have fully justified my hope. I can say without exaggeration that the contributions from the Mathematics, Physics, Chemistry and Experimental Psychology departments of the College of Science have won world-wide recognition.

A few months back when one could foresee the effects of the bankruptcy of the University on its activities, I issued an appeal to the Government for financial support to the University; but nothing has materialised yet. I have observed public men to dwell upon the exclusive necessity of fostering primary and technical education, I fully realise the need of support to both these types of education; but I hope I shall not be misunderstood, when I say with all the emphasis at my command that it will be nothing short of a national disaster if higher University education and the spirit of research, be it in history, literature or science are allowed to die an unnatural death due to our short-sightedness. Our primary or secondary schools or properly equipped technical schools are very useful in their own way but wider outlook and culture are perhaps equally necessary. They cannot turn out scholars or statesmen who will mould the future of the country. If we really care for the development of the resources of our country in our interest, we must have our own men who can tackle the present-day scientific and engineering problems. In the College of Science we have just a nucleus of these men. On such people with the creative inspiration and capacity in them must depend the future of technological education or industrial research. Higher scientific training and research must remain associated with the activities of the University and the Government and the public ought to give their ungrudging support to the cause if they mean well of the country. Though the public endowments to the

College of Science and the contributions from the fee funds of the University amount to about sixty lacs, the Government has only spent a lac of rupees in the way of an annual grant of Rs. 12,000 for the last seven years. I am constrained to say that the Government lays itself open to the accusation of deliberately neglecting the cause of higher scientific education. The old adage, "where there is a will, there is a way," I think, still holds good.

There is another aspect of the present tussle that is going on between the supplicating University authorities on the one hand and the Government of Bengal and the Legislative Council on the other. On principle, I have no sympathy for autocracies but the public and the keepers of the public purse must remember that there is a great deal of difference between antagonism to a person and antagonism to a cause. If in their zeal to remodel the University, the Bengal council put an untimely end or curb the normal development of the tender plant of higher education, the public of Bengal, however much indifferent they may be at present, will never forgive them. Their day of reckoning will come when the public will realise the injury.

I appeal to the Government to realise the lot of those unhappy members of the teaching staff, who have to go without their pay for months together. I can say without hesitation and am prepared to prove it to any unbiassed critic that by far the majority of the members of the staff in Arts and Science departments are men with the best of qualifications. Some forty of them have left it in view of the bankrupt condition of the University on an average pay which is more than double of what they could have expected here. The prospects of the average lecturer is not a whit better than those of the members of the Subordinate Educational Services, without considering the prospect of a pension, which the latter enjoy. It is rather difficult to imagine how the public and the Council can calmly witness the miseries of a body of deserving men, which is not due to any fault of their own. The Government ought to have taken steps earlier and ought not to have allowed the University to be bankrupt if they had any regard for their prestige. The obvious solution of the present trouble is to set the University on its feet first and that at once by wiping out the deficit without any controversial conditions attached to the grant of money. Then there will be time enough to consider the best ways of running the University. It is not my intention to deprecate the attempts to remodel the University. The Government have also every right to make conditions

for grants of money, provided they are in harmony with the interests of higher education. One could suggest many reforms in the University. It is not very difficult to diagnose its ailments and to suggest the remedies but after all the disease is one of chronic starvation due to want of support from the Government. The patient must be saved first, as somebody has suggested, if the Council does not want to be a party to the wreck of a national institution, which has rendered undoubted services to the country. The Government must also make it clear to the public without delay the reforms it proposes to introduce in the University for the information of those who though they may not belong to the Senate or to the Government are not less interested in the welfare of the University nor less qualified to suggest remedies. Our libraries and laboratories are already without funds. It is well-nigh impossible for most of us to work in a depressed atmosphere with no prospect of a regular pay or of funds for recurring expenses. We have been compelled to stop our work in many directions. For want of contingent money we cannot even spend a few rupees for our everyday needs.

Sometimes, when I consider the dismal outlook and the utter indifference of the public, I almost have a sinking feeling in my heart and despair of the future of higher education and scientific research for which I have in my own humble way worked throughout my life. I would appeal to one and all to shake off personal jealousies or dislikes and set themselves to help the University in the realisation of its noble task. I hope my humble warning will not go unheeded.

THE LATE MR. TAWNEY

Sir Michael Sadler writes thus to Sir Devaprasad Sarvadhikary about the late Mr. Tawney :

He had an impish wit. When he lived at Meybridge he retained all the powers which left so deep an impression upon you and others in India. But he was exceedingly modest and, until I came to Calcutta I never realised what a great part he had played in the education of Bengal. He was a master of irony, and of understatement. He used to chuckle over the opinions of art held by one member of his brilliant family. In him we all knew a representative of Rugby and Cambridge at their best. This is the kind of mind and of heart that humorous England (I use 'humorous' in the old sense of the word as meaning "whimsically independent") can produce and which is one of its best exports.

GOD A MYTH

In the last July number of the *Calcutta Review* we published a letter from Mr. Bernard Shaw where he says that God is not omnipotent. The letter was quoted by many papers in England and America and Mr. Luis Jackson (former Railroad Industrial Development and Export Commissioner) of Upper Montclair, New Jersey, has sent us a pamphlet entitled "God a Myth." His theory is that "the supreme being idea is a creation of the human mind starting from the imaginations of our primitive ancestors" and "there is not a tithe of rational proof of the existence of a god." Space does not permit us to reproduce his paper here. It is needless to say that we do not necessarily share the opinions of our contributors, be they theists or atheists, though they are welcome to ventilate their views through these pages.

HELLENISM ¹

Lieut.-Colonel Sir Richard Carnac Temple, C.B., C.I.E., Acting President, Royal Asiatic Society of Great Britain and Ireland, and Editor, *The Indian Antiquary*, has contributed an important paper on Hellenism to the Journal of the Central Asian Society, 1922 (Vol. IX, pp. 238-246) by way of review of the work on Hellenism in Ancient India by Dr. Gauranga Nath Banerjee. The paper is of intrinsic value to the student of History and we reproduce it here :

For the understanding of ancient Indian and Western Asian history the subject of Hellenism is of the first importance, and it says much for Dr. G. N. Banerjee's handling of it that his book has gone to a second edition in the year succeeding the appearance of the first. The subject is wide to a bewildering extent, and demands a matured knowledge of many of those studies that make up the "humanities." Dr. Banerjee has shown himself to be not afraid of tackling any part of it.

¹ "Hellenism in Ancient India," by Dr. G. N. Banerjee, Lecturer on Egyptology and Oriental History, Calcutta University. Second edition. Butterworth and Co.: Calcutta and London.

Taking Hellenism to be the spread of Greek culture, and the Hellenes to be the peoples who accepted the Greek mode of life, such culture could not be extended to India without contact, and contact between the Near East, as we know it, and the Greeks was early indeed.

The actual commencement of the ancient Persian Empire took place in the mid-sixth century B.C., at the time when India had not long emerged from the period without dates, and was the result of the defeat of the Median ruler of Ecbatana (Hamadan) by Cyrus the Great. The immediate consequence of this event was a coalition against Cyrus, consisting of Nabonidus of Babylon, Amasis of Egypt, Croesus of Lydia, and the Spartans of Greece proper, which that master of affairs, military and civil, defeated in detail. The whole situation implies close contact between Greek and Asiatic, both Aryan and Semite, and African, which was even then no new thing, for the Median Empire had extended westwards to the Halys in Asia Minor. Then in the same century we have Cambyses with his conquest of Egypt and his adoption of Egyptian manners, and Darius with his conquest of the Ægean Islands towards the end of it. Thereafter there was a continuous struggle between Persian and Greek for the next two centuries till the arrival of Alexander the Great in the late fourth century B.C.

The nature of the Oriental armies and their commanders thus in contact with the West is material to the present argument. The Persian armies, led by the Achæmenids of the dynasty founded by Cyrus, was raised out of a manly, hardy, patriotic, and enthusiastic peasantry, thoroughly believing in itself and its leaders. After a time the inevitable decay in these moral qualities set in, and the Persian armies became manifestly inferior to the Greek, paving the way for Alexander's victories. On the initiation of Cyrus the earlier Achæmenid rulers thought and acted imperially. That is to say, their tendency was to behave humanely towards the conquered and to spread civilization. Darius was a born organizer, a believer in the destiny of his race, to which the great God, Ahuramazda, had given dominion "over this earth afar, over many peoples and tongues," whom he was pledged to govern aright and civilize. Indeed, at times he went too far in his concessions to local aspirations. Darius's system was to govern by satrapies, which were vicerealties, each with its subordinate governments, and in the West there were city-states as well. Within the satrapies the subject races had much freedom of self-government, which created an immense variety of provincial administration, suited to local civilization, and indicated by every system of finance between the use of minted money and trade by pure barter.

The political effect of the Achæmenid Empire was to civilize, to improve communications, agriculture, finance, and trade, to foster industrial art, and to affect enormously the religion of the ancient world. The Achæmenids, like the Medes before them, were enthusiastic Zoroastrians, and their widely spread empire gave an opportunity for propaganda on an immense scale. The Zoroastrians, like the Brahmans, were natural missionaries, and in effective eclectic methods for diffusing their respective creeds, through priestly castes, there is not much to choose between them. Neither opposed the foreign gods, but both absorbed them: the Indian as emanations of his own Vishnu or Shiva, the Persian as servants of the Supreme Ahuramazda. But the Indian dealt with the peoples of a compact country and so was able to dominate while absorbing; whereas the Persian dealt with a world-empire, and so was ultimately himself dominated through his absorption of the more gorgeous cults of the civilizations he encountered.

Now, it was Darius that first established direct contact with India, still in the sixth century B.C.—in the last two decades of it—not by way of conquest of set purpose, but by way of the natural expansion of a great empire in order to preserve the peace in its outlying provinces. In the same way, to the west he spread his dominions to Thrace and Macedonia and along the southern littoral of the Mediterranean to the territories of Karta (Carthage). Such armies, raised out of such a people, under such rulers, could not but seriously affect those with whom they came in contact, and Northern India must to some extent, from the earliest historic times have become aware of Western Asiatics and their ideas and ways. The spirit in which Darius or his representatives worked in India is shown by the coasting voyage of exploration undertaken by Skylax of Karyanda from the Indus to Suez in 509 B.C., under his ægis.

In spite of his achievements, Darius received a severe check at Marathon in 490 B.C., and his successor Xerxes still severer defeats on the sea at Salamis in 480 and on land at Plataea in 479. But at this last battle Indian archers were present, and whatever may be the exact sense that we should attach to the term "Indian" here, this fact does argue more than a superficial contact between India and the West, even at that early date. From the time of Xerxes and his two crucial defeats the Greeks waxed stronger and the Persian power waned steadily, despite temporary spectacular successes, such as those of Artaxerxes III. (Ochus) the mid-fourth century B.C., just before the final conflict with a united Greece under Philip of Macedon. But these were purely superficial victories as they were won by Hellenic armies, under Hellenic generals (Mentor and Memnon of Rhodes) fighting for an Asiatic suzerain, to whom they were

incontestably superior. So when the youthful Alexander succeeded to the aspirations of Philip—the founding of a Greek state out of the Persian (still Achaemenid) Emperor's Greek dominions—he found himself confronted by an empire, the helplessness of which before a Greek invasion had been abundantly shown, and throughout which Greek influence was no new experience.

Alexander was a Greek of the Greeks, saturated with Greek culture, a conscious world-conqueror for Greek civilization from the beginning, capable of carrying out his ideas, and only prevented from doing so to the full by being cut off at thirty-three, practically at the commencement of his astonishing career. So far as the Persian Empire was concerned, his influence was immense during his short life there, owing *inter alia* to his assumption of the dress and ceremonial of the Achaemenids, his establishment of autonomous Greek municipalities along his line of march, and the marrying of all his officers and some ten thousand Macedonians besides to Persian wives. He was Greek enough to follow the old Greek philosophic advice to be "himself the law," and to be officially proclaimed a god ruling by divine right, and eclectic enough to aim at the amalgamation of all his subjects rather than treat the Asiatics as servants of the Greeks.

At his death there were set up by his generals (*diadochoi*) the satrap or viceregal dynasties usual on such occasions in Oriental history, but within a decade of it one of them came to the front in the person of Seleukos Nikator, the only one of Alexander's generals who had retained his Persian wife after his master's disappearance from the scene. He created and ruled successively from Babylon, Seleukia near by, and Antioch in Syria, an empire extending from Syria to the Indian borders, where he was checked by the great Indian pupil of Alexander, Chandragupta Maurya (Sandrakottos). But just before his death he extended his rule westwards to all Asia Minor and Thrace. Seleukos Nikator was a Hellenizer on a large scale, following Alexander's plan of founding Greek autonomous cities with country districts attached thereto under the suzerainty of the empire—a policy that diffused the Greek language, commerce, and civilization everywhere, as far east at least as the Indus, and created large and flourishing communities which attracted wealthy settlers, especially Jews, from foreign lands. His son and successor, Antiochos Ioter, another great man, continued his father's work, and he it was who gave the Oriental Hellenistic civilization its form, as we know it, in the second century B.C.

But the Seleukid Empire had an inherent defect in the centrifugal tendencies of its numerous autonomous municipal centres, and these, combined

with the attacks of outside enemies, made the lives of the later Seleukids one long battle for existence. Revolts, more or less successful, were rampant everywhere, leading up to the wholly or partially Hellenized Indo-Baktrian and Parthian kingdoms on the Indian frontiers, which played so prominent a part in ancient Indian history. Eventually the Seleukid, Antiochos the Great, came into conflict with the Romans in the beginning of the century before Christ, and from that time the empire was doomed, soon afterwards falling before the rising power of the whilom nomadic Central Asian Parthians, by that time a settled people of a high civilization and thoroughly Persianized.

Nominally Imperial, the Parthians held the country from the Euphrates to the Indus, but in reality they never created an empire, and ruled through vassal states of varying conditions of independence. They were also at continuous feud with Rome, and often proved a formidable enemy. Gradually their rule degenerated into a condition externally always on the defensive, while internally there was ceaseless civil war and strife. Local states within such an empire could not have been much interfered with. Politically and administratively the earlier Parthian rulers were thoroughly Hellenized in institutions, currency, and commerce, though in religion they were stalwart Zoroastrians. Some of them spoke good Greek, and on the whole their great service to civilization was that they acted as a buffer between Hellenism and the barbarism of the Central and Northern Aryan hordes for something like half a millennium—until well into the third century A.D. Nevertheless, the effect of their suzerainty was in the end to create a reaction against Hellenism, because Greek culture and the Greek mode of life were inherently unsuited to a rough Oriental people of the Parthian and Central Asian type. So Hellenism gradually declined, until the destruction of Seleukia by the Romans sealed its fate. Then the Greek language gave way before the Aramaic of the Syrian Christians, and thenceforward Greek culture and literature were available to Persia only in an Aramaic dress. Hellenic influence fell away and finally passed out of ken under the great Sasanid successors of the Parthians. In the days of the Sasanids, who are Persians *par excellence*, were waged two exhausting struggles—Persia *versus* Rome, and Zoroastrianism *versus* Christianity—for four long centuries, until the advent of the Arab Caliphate of Baghdad produced the absolute ascendancy of the Mohamedan faith in Persia in the seventh century A. D.

Contemplating such a story as this, as I read it in outline with reference to Hellenism, of the lands between Greece and India, and of the lands within their respective borders in ancient times, one cannot but say that

prima facie the reciprocal influence must have been very great. How far that influence can be said to have been actually felt as regards India is the riddle that Dr. Banerjee has set himself to solve, so far as a solution is possible. He has not shirked his task, and considers it from all points of view—architecture, sculpture, painting, coinage, astronomy, mathematics, medicine, writing, literature, drama, religion, philosophy, mythology, fables, and folklore. The view is comprehensive enough in all conscience, and its study is history *in excelsis*. Such a width of view involves an enormous amount of varied reading, and, what is more, an unusual capacity for absorption and assimilation of what is read. Dr. Banerjee has grasped his nettles with an unflinching hand, and has honestly attempted to crush out of them all that they have to give him. He has his opinions, but he states his grounds fairly, and though experts may find what appear to them to be flaws in apprehension and deduction, yet he is so transparently honest and fair that his views and efforts cannot but command respect. He is not afraid of cross-examination, and gives his authorities in a series of admirable bibliographies attached to each section of his work. These are not always as complete as they might be, but at any rate one does know exactly on what he bases the faith that is in him. In this way he has produced a work that is a credit to himself and his University.

Dr. Banerjee would be the last person to hold his present edition to be a final say on his subject. No doubt further editions will succeed it, and perhaps he will therefore take the following suggestions into consideration. The relations and mutual influence of nationalities in contact, but situated so far apart as were the ancient Greeks and Indians, are subject to that general law of evolution, whereby an individuality progresses mainly on a line of its own, subject to the influence of every other line with which it may come in contact. Therefore, in effect, in this case, Indian institutions and thought would eat into those of the Greeks, and *vice versa*, and what one has really to look for is, firstly, the extent and nature of the contact, and, secondly, on what points each has in actual fact definitely affected the other. It is in this way that universal fashions in thought and practice have from all time been set up from age to age. Looking through the ages historically, it will be found that among nations in contact common fashions in thought, practice, and industrial art rise up, prevail, and die out from one age to another, and that this is the result of contact, which has acted either directly or indirectly through an intervening body. Much that is common to them all in India, Persia, Greece, and Rome, in what we call ancient days, is due to fashions prevailing among nations of "Aryan" civilization from time to time. This, it seems to me, is a point that

searchers into the effect and scope of Hellenism should take into serious consideration.

Again, what manner of antagonists were they that carried on the age-long struggles outlined at the commencement of these remarks—these Greeks and Romans on the one hand, and these Persians and Persianized Parthians on the other; these Hellenes of Persia and Afghanistan and these “Aryans” of India proper? In the dim past, as afterwards right up to modern times, the great overboiling cauldron of Europeo-Asiatic humanity was situated in Central Asia. Thence issued horde after horde in age after age to the west, south, and east, and their great characteristic throughout was their power of dominating absorption. They adapted themselves with remarkable rapidity to any civilization with which they happened to come in contact, and to such an extent that they often themselves soon became its chief exponents. Thus they overran from time to time, under different names, the East, West, and South, but always with the same effect, wherever they were not quickly ejected. They overran, became absorbed, and leavened their absorbers with their own thoughts, practices, and arts. In the East they met the Chinese and their already established civilization. In the West they met at first what we may call the Babylonian, Semitic, and Hamitic civilizations, and then the Greek and Roman. In the South they met what again one may call the Dravidian civilization. And it must be remembered that none of these were even then anything but a complex of various still older civilizations, which we can at present only call aboriginal.

The very ancient irruption into the West and South from Central Asia we are just now concerned with was that of the “Aryans.” Without going too much into detail, in Persia these immigrants met an existing Babylonian-Semitic culture and absorbed it into their own. This they carried across westwards to Greece and Rome, coming into contact in the process with Hamitic, Egyptian, Mediterranean, and Germanic types of mankind, and eastwards to India, where they met a culture of Dravidian and Sinitic, and—shall we say also?—of a Kolarian type. Everywhere the dominating factor was Aryanism deeply imbued with the local leaven. So that when the titanic struggles between Greek and Persian and between Persian and Indian arose, we find the same dominating temperament on both sides, effected by almost every kind of national idiosyncrasy in Europe and Asia. There was, indeed, very much in common between Greek and Persian, Persian and Indian, and Indian and Greek, as well as much that was antagonistic. What, therefore, appears now to be the result of mutual influence may well have been but a common

inheritance. This is the direction in which it seems to me that further research will lead us.

In view of the above remarks, the following conclusions drawn from his research by Dr. Banerjee in his *Introduction* (p. 26) will show how far he has been guided by similar ideas, and how far he may be inclined to develop them in future. Says Dr. Banerjee: "Greece has played a part, but by no means a predominant part, in the civilization of ancient India. The evolution of Philosophy, Religion, and Mythology has gone along parallel but independent paths. India owes to Greece an improvement in Coinage and Astronomy, but it had begun both; and in Lyric and Epic poetry, in Grammar, the Art of Writing, the Drama and Mathematics, it had no need to wait for the intervention and the initiative of Hellenism. Notably, perhaps, in the plastic arts and especially in the details of some of the architectural forms, classical culture has acted as a ferment to revive the native qualities of the Indian artists, without robbing them of their originality and subtlety. But in any case, the fascinating story of the Greeks in India is not only full of suggestion, but is also a most interesting chapter in the history of the development of ideas. The question is not of interest solely to the Indianists and the Hellenists, but likewise to all those who occupy themselves in tracing the evolution of general history, and to those who above all love to follow, even in their more remote expansion, the antecedents of our modern culture and civilization, the different phases of our national development and progress."

One is tempted to quote again and again from Dr. Banerjee's suggestive pages, but I will content myself with one extract from his description of Indian in connection with Greek medicine. He says (pp. 201-203): "Even in modern days, European surgery has borrowed the operation of rhinoplasty, or the formation of artificial noses, from India, where Englishmen became acquainted with the art in the last century. The Indian rhinoplasty has attained some reputation, because of its early introduction and because of its influence upon the plastic operations of European surgeons, such as Carpus, Gräfe, Dieffenbach, perhaps even Brouncker and Tagliacozza. Although the skin of the forehead was used as a substitute for the nose in the operations performed in the eighteenth century by the Indian doctors, still the connection with the old method, where the skin of the cheek was used, could not be doubted. Dr. Haas declared Susruta's description of rhinoplasty (about the time of Christ) as an insipid modification of a similar description in Celsus (7, 9), and referred to a remark in Chakradatta's commentary on Susruta, according to which the whole of the description in Susruta is said to have been *anarsa*—i.e., not genuine. But the references

in Celsus have only a faint resemblance to Susruta, and Dallana, Jaiyyata, Gayadāsa, and others—*i.e.*, the oldest commentators—have recognized that portion of Susruta as genuine."

Dr. Banerjee is here possibly on debatable ground, but his remarks will, nevertheless, be of special interest to many, who, like the present writer, were *ex officio* interested during the late European war in the maxillo-facial hospitals, that did so much to make the future life of many an unhappy sufferer from the various fronts more bearable than it would otherwise have been.

IN MEMORIAM

The late PANDURANG DAMODAR GUNE, M.A., Ph.D.

Another scholar full of hope and promise has passed on beyond the portals of death. Within the last few years India has lost so many scholars of repute in the prime of their lives. Among young and promising scholars of Sanskrit we have lost but recently Todar Mal, Tukaram K. Laddu, Vinayak S. Chate, and now Pandurang D. Gune. Born of a poor family but inheriting all the riches of Brāhmaṇa culture his career at the Bombay University was one of uninterrupted success. He was one of the brightest of the Fergusson College *alumni* and graduated with first class honours in 1904 with top marks in Sanskrit. Two years later he got his M.A., again topping the list in Sanskrit. Like so many young men of the Mahārāshtra country he dedicated his life to the educational needs of India and preferred the comparative poverty of a post in his beloved college to service elsewhere. A few years later he was awarded one of the Government of India Sanskrit Scholarships and proceeded to Leipzig to read Comparative Philology under one of the greatest authorities on the subject—Karl Brugmann. He also had as his teacher then the late Prof. Windisch. His dissertation on the language of the Brāhmaṇas got him the Doctorate with honours. On his return to India he went back to his old college and remained one of the leaders of the new educational movement there up till the last. His health had been failing for some time. The cold of Europe was too much for him and he has ultimately succumbed to that dread disease, tuberculosis, which has claimed so many victims among our learned scholars.

To one who had had the privilege of his friendship the shock is indeed great. Gentle and unassuming, quiet and studious was this scholar. He never made a parade of his great learning, nor did he ever knowingly give offence by his words or actions. Many would remember the slight short figure of the indefatigable Secretary of the First Oriental Conference at Poona in November, 1919. His good sense and kindly humour and tact won for him the good opinion of all. He was deeply loved by his students and all his friends felt a very great respect for the scholar and a warm regard for the man. His *Introduction to Comparative Philology* published in 1918 is an important Indian contribution to that subject. In him the world of scholarship has lost a true student, the Fergusson College has lost one of its ablest workers, his many friends and admirers have lost a very dear comrade, and his near relations—what words shall convey *their* loss! We can but pray for comfort to the living and peace to the departed. His place will not be filled for many a day to come. To this University, the loss is irreparable, as he had undertaken the preparation of a volume of *Prakrit Selections*, which he has not lived to complete.

REPORT
OF THE
REGISTRATION FEE COMMITTEE
APPOINTED BY THE SENATE
ON
THE 26TH AUGUST, 1922

REPORT

We, the members of the Committee appointed by the Senate on the 26th August 1922 to consider the correspondence with the Government of Bengal regarding the enhancement of the fee for registration of students, have the honour to submit our report.

Section 6 of Chapter XV of the Regulations provides as follows :

“On matriculation, every student shall be required to pay to the University a registration fee of two rupees, when his name is sent in by the Principal.

No further fee for registration shall be charged, unless a student's name is, on non-payment of fees, absence without notice or expulsion, struck off the books of a College, in which case he shall pay one rupee to have his name re-entered in the University Register.”

On the 4th December 1920, on the motion of Sir Asutosh Mookerjee, seconded by Mr. W. W. Hornell, the Senate carried *nem con* the following resolution :

“That, subject to the sanction of the Government of India, ‘five’ be substituted for ‘two’ in the first paragraph of section 6 of Chapter XV of the University Regulations.”

Before the Minutes of the Senate could be confirmed and the resolution transmitted, under section 25 (1) of the Indian Universities Act, 1904, to the Government of India for sanction, the power vested in that Government was transferred to the Government of Bengal.* Consequently, the following letter was addressed to the Government of Bengal on the 11th April 1921 :

From the Registrar, University of Calcutta, to the Secretary to the Government of Bengal, Department of Education, No. G-438, dated Senate House, the 11th April, 1921.

I am directed by the Hon'ble the Vice-Chancellor and Syndicate to request you to move the Government to sanction

* The Government of India, in fact, intimated more than once during this period that “in view of the impending change in the agency for control over the University of Calcutta,” they were transferring to the Government of Bengal matters sent up to them by the University for their consideration.

under Section 25 (1) of the Indian Universities Act the following change in the Regulations which has been unanimously adopted by the Senate :

"That the word 'five' be substituted for the word 'two' in the first paragraph of Section 6 of Chapter XV of the University Regulations."

Section 6, as it now stands, requires every student who has passed the Matriculation Examination to pay to the University a registration fee of Rs. 2 when he takes his admission into an affiliated College. It is proposed to raise the fee to Rs. 5. This will give the University an increased income ; it will not, at the same time, restrict the admission of passed students into Colleges. It is well known that there is keen competition among passed students to secure admission into the Colleges, and the Colleges are obliged to refuse admission in many instances from lack of accommodation. It may further be observed that the fee is payable only once during the whole career of the student, namely, when after passing the Matriculation Examination he seeks admission into a College. The small increase proposed is really insignificant when compared with the total expenditure which the student has to incur during the entire period of his College career.

No reply to this letter was received for several months, with the result that even if the proposal were sanctioned by the Government, it would not have been possible to apply the new rule to such students as would enter the Colleges after the Matriculation Examination of 1921. At length, the following reply was received on the 23rd September 1921 :

From the Deputy Secretary to the Government of Bengal, Education Department, Education Branch, to the Registrar, University of Calcutta, No. 2113 Edn., dated Calcutta, the 22nd September, 1921.

With reference to your letter No. G-438, dated the 11th April, 1921, regarding the raising of registration fee from Rs. 2 to Rs. 5 in the case of a student who has passed the Matriculation examination and taken admission into an affiliated college, I am directed to say that the Government of Bengal (Ministry of Education) have not been able to come to a decision on the matter. Resolutions have been put down more than once on the subject for discussion in the Bengal Legislative Council, but they have not yet been discussed, and until they are discussed and the sense of the Council known, Government are unable to deal with the question.*

2. The delay in replying to your letter is regretted.

* It should be noted that the resolutions were notified for discussion in the sessions of the Council commencing on the 4th July 1921 and the 29th August, 1921, while the letter from the University was sent as early as the 11th April, 1921.

This was communicated by the Syndicate to the Senate at the next ordinary meeting on the 10th December 1921.

The following further communication on the subject was received on the 20th December 1921 :

From the Deputy Secretary to the Government of Bengal, Education Department, Education Branch, to the Registrar, Calcutta University, No. 2625 Edn., dated Calcutta, the 19th December, 1921.

In continuation of this Department letter No. 2113, dated the 22nd September, 1921, I am directed to say that the Government of Bengal (Ministry of Education) regret that they are unable to sanction the change in the Regulations proposed in your letter No. G-438, dated the 11th April, 1921.

This was placed before the Senate on the 28th January 1922, and was adjourned for consideration to the 18th February 1922, when, on the motion of Mr. Rama Prasad Mookerjee, seconded by Mr. Manmatha Nath Ray, the following resolution was unanimously adopted :

“ That the Government be requested to state the grounds for refusing to accept the recommendation to raise the fee for registration of students.”

Pursuant to this resolution, the following letter was addressed to the Government of Bengal on the 22nd February 1922 :

From the Registrar, University of Calcutta, to the Secretary to the Government of Bengal, Education Department, No. G-312, dated, Senate House, the 22nd February, 1922.

I am directed to acknowledge the receipt of your letter No. 2625 Edn., dated the 19th December, 1921, on the subject of raising the registration fee from Rs. 2 to Rs. 5 in the case of a student who has joined a college after passing the Matriculation Examination and to say that the letter was duly placed before the Senate, at their meeting held on the 18th instant. The Senate have desired me to request the favour of your stating, for the information of the Senate, the grounds which have led the Government of Bengal to refuse to accept their recommendation in regard to the proposed raising of the fee for registration of students.

After the lapse of several months, the following reply was received on the 21st July 1922 :

From the Secretary to the Government of Bengal, Education Department, to the Registrar, University of Calcutta, No. 1422, dated the 20th July, 1922.

I am instructed to refer to your letter No. G. 312, dated 22nd February, 1922.

It is one of the functions of Government in the Department of Education to deal with proposals for the alteration of University regulations, nor is it necessary that the considerations that influence the decision should be communicated with the decision. In the present case, however, Government is prepared to waive this consideration and to point out that the general public is interested in a peculiar degree in the University of Calcutta through which alone (with the exception of the Dacca University) young men of the educated classes must pass on their way to their future profession or calling, and the public through their representatives in the Bengal Legislative Council strongly indicated the opinion that the registration fee should not be raised, and that if it were raised the increase of revenue would be trifling in relation to the deficit that the University has to meet. This attitude of the public, Government has reason to believe, is connected with the view that the University spends too large a portion of its resources on the Post-Graduate Department, especially on the Arts side, and that the increase of fees of any kind will in the main benefit only that minority that has joined these higher classes. Government appreciates the enthusiasm with which the post-graduate departments have been developed, but cannot ignore public opinion on this point, and while reluctant to interfere with the liberty of action of an academic body, is unable to accept the principle that financial proposals made by the University should be approved as a mere matter of form. Government has to make its decisions in the public interest, and in carrying out the responsibilities placed upon it in relation to the University must take into account public opinion on the matters at issue, as represented by the Bengal Legislative Council, and in other ways.

3. I am to add that the decision already communicated will not prevent further consideration by Government of any similar proposal if it is intended to utilise the additional resources on purposes beneficial to the majority of the students who pay the registration fee.

4. I regret the delay which has, owing to various reasons, occurred in replying to your letter.

The above letter was, by order of the Syndicate, placed before the Senate on the 26th August, 1922, and has led to the appointment of the present Committee.

It will be observed that the Government of Bengal maintain that the considerations which influence their decision with regard to proposals for alteration of the University Regulations should not necessarily be communicated along with the decision. It need not be disputed that section 25 of the Indian Universities Act does not in express terms make it obligatory upon the Government to mention any reasons, when

they withhold sanction to a regulation proposed by the Senate. It should not be overlooked, however, that ever since the foundation of the University, the Government of India made it a uniform practice to state the grounds for their action, in the event of their refusal to sanction regulations submitted for their approval under section 8 of the Act of Incorporation, 1857, and subsequently under section 25 of the Indian Universities Act, 1904. It is obvious that weighty arguments may be adduced in defence of the course followed by the Government of India. We need not emphasise that when the Government find themselves in disagreement with the Senate upon a specific recommendation, it would be at least courteous on their part to assign definite reasons in support of the view adopted by them, contrary to what has been held by a body of educated men who are presumably competent to be entrusted with the management of and superintendence over the affairs of the University. Such a course would be calculated to inspire confidence and respect, and would thereby minimise the chance of the question being raised, why the Government should at all be vested with final authority in matters of this description. The danger involved in a contingency like what has now happened was fully anticipated by the Calcutta University Commission, when in their report they made elaborate recommendations so that the proposals, which, under the existing system, were required to be submitted to the Government for sanction, might be decided by the University authorities themselves. Apart from these considerations, it cannot be overlooked that a full statement of reasons in support of such course as may commend itself to the Government is the most potent safeguard against arbitrary or erroneous action. This is well illustrated by what has happened in the present instance, and we are of opinion that in the interests of all concerned, the Government should, without reluctance or hesitation, communicate the reasons in the event of their refusal to sanction a regulation framed by the Senate under section 25 of the Indian Universities Act. We must add here that we have not been able to appreciate the propriety of the remark that the Government "is unable to accept the principle that financial proposals made by the University should be approved as a mere matter of form." It is sufficient to point out that the principle which is thus repudiated has never been formulated by the University. But what the Senate may and should claim is that their recommendations ought not to be summarily rejected even without a statement of reasons.

The chief ground put forward by the Government in justification of their refusal to sanction the proposed change is that the additional income is likely to be applied to meet the expenditure on Post-Graduate Studies. Indeed, it is stated explicitly that further consideration, by the Government, of a similar proposal may be possible, if it is intended to utilise the additional income "on purposes beneficial to the majority of the students who pay the registration fee." It may at once be observed that the letter from the University did not specify that the additional income would be spent for the maintenance of the Post-Graduate Department, and it is difficult to see why there should have been such an apprehension in the minds of the authorities. We shall return to this point later on; at this stage, we propose to controvert the proposition that the income derived from the registration fee, or, for the matter of that, any other fee, should be spent for the benefit of the majority of those who pay the fees. If the doctrine favoured by the Government were recognised in practice, the activities of the University, indeed, of all public institutions not excluding the Government of Bengal, would have been completely paralysed. Each candidate for the Matriculation Examination, for instance, may on this principle well urge that he can be required to pay only just so much as is necessary for the conduct of his examination. If this were once conceded, it would follow, conversely, that every individual candidate should be called upon to meet all the expenditure incurred by the University for his benefit. To take an illustration; if there is only one candidate at the examination for the degree of Doctor of Medicine, and it costs the University five hundred rupees to conduct that examination, the entire amount should, in that case, be levied from him in the shape of examination fee. The University, however, has not hitherto recognized, much less applied, such a surprising doctrine. On the other hand, the entire University has been regarded as an entity, and the income, from whatever source derived, has been used for the maintenance of the institution as a whole. It cannot be possible that it is unknown to the Government of Bengal that under section 45 of chapter XI of the University Regulations, which were sanctioned by the Governor-General in Council, one-third of the fees realised from candidates for the Matriculation, I.A., I.Sc., B.A. and B.Sc. Examinations is required to be spent on Post-Graduate Studies. Clearly, this is nothing but a form of taxation, which affects only those who manifest their interest in high

education by presenting their wards as candidates at University examinations. The same method has been adopted in Lahore; the University of the Punjab has, with the sanction of the Punjab Government, raised the fees for admission into its examinations and has ordained that a portion of the increased revenue should be expended on the development of Post-Graduate Studies. We are glad to be able to quote the authority of even the Government of Bengal against the soundness of the theory that a person should pay only so much as is needed to give him the benefit he receives. The Government of Bengal have for many years past conducted, through the Committee of Legal Education, the Pleadership and Muktearship Examinations, and have made what would certainly be considered a huge profit, namely Rs. 4,92,094-12-0, during the entire period that the system has been in operation (1875-1921). We set out here the figures for recent years.

Year.	Receipts.			Expenditure.			Balance.		
	Rs.	AS.	P.	Rs.	AS.	P.	Rs.	AS.	P.
1901 ...	22,430	0	0	10,882	10	0	11,547	6	0
1902 ...	23,540	0	0	11,115	14	0	12,424	2	0
1903 ...	25,530	0	0	12,083	9	11	13,446	6	1
1904 ...	26,050	0	0	12,513	7	4	13,536	8	8
1905 ...	27,820	0	0	12,823	6	6	14,996	9	6
1906 ...	29,120	0	0	13,317	7	1	15,802	8	11
1907 ...	32,530	0	0	14,797	0	10	17,732	15	2
1908 ...	30,560	0	0	14,494	3	0	16,065	13	0
1909 ...	35,115	0	6	15,730	5	3	19,384	10	9
1910 ...	35,255	0	0	15,299	6	6	19,955	9	6
1911 ...	40,560	0	0	17,516	4	3	23,043	11	9
1912 ...	42,440	0	0	17,394	7	0	25,020	9	0
1913 ...	34,435	0	0	16,867	6	6	17,567	9	6
1914 ...	28,290	0	0	11,440	8	0	16,849	8	0
1915 ...	23,520	0	0	13,711	14	0	9,808	2	0
1916 ...	24,845	13	0	13,887	13	0	10,958	0	0
1917 ...	16,010	0	0	12,566	7	0	3,443	9	0
1918 ...	14,035	0	0	12,071	7	3	1,963	8	9
1919 ...	14,165	0	0	12,429	13	0	1,735	3	0
1920 ...	16,830	0	0	13,377	0	0	3,453	0	0
1921 ...	19,890	0	0	13,709	9	0	6,180	7	0

It would be interesting to know whether the Bengal Government have set apart the excess amount every year and

applied the sum "for the benefit of the majority of the candidates who actually paid the fees."

To take another illustration. The Bengal Government have for some time past conducted the Sanskrit First, Second and Title Examinations through the Board of Sanskrit Examinations, now called the Calcutta Sanskrit Association. Every year there is a balance left, which, during the last ten years, has accumulated to more than Rs. 30,000. It would be interesting to find out whether the surplus has been kept apart from year to year and applied for "purposes beneficial to the majority of the students who actually paid the fees."

We may usefully recall, for purposes of further illustration—if, indeed, any further illustration is necessary,—recent incidents which must be still fresh in the minds of most people. The Bengal Government have, within the last twelve months, raised, by legislation, the fee payable by every applicant for enrolment as a Vakil of the High Court, from Rs. 400 to Rs. 750. It would be interesting to ascertain whether this additional revenue will be utilised for "some purpose beneficial to the majority of those" who will be subjected to the payment of the enhanced fee. The Bengal Government have, again, by legislation, substantially enhanced the amount of Court-fee leviable on plaints, memorandums of appeal and other legal documents. We have not yet learnt that the additional revenue raised from this source has been directed to be set apart "for purposes beneficial to the majority of" the litigants who will be compelled to submit to the new taxation—we are not even sure that the amount will be spent towards the improvement of the judicial administration of the Presidency.

These illustrations—they can easily be, but need not be, multiplied—make it abundantly clear that the position taken up by the Government is thoroughly unsound. Institutions which serve society on an extensive scale and whose functions are inevitably of a complex character, cannot be disintegrated into distinct and self-contained fragments. In addition to this, the question of the registration fee stands in a manner by itself. The registration fee, as is made plain by the Regulations, is paid by a student after matriculation, because by taking admission into a College he becomes a student of the University; see Chapter XV, section 1. The fee is levied but once at the beginning of his career and is his contribution to the University chest in his character as

a student of the University. On no conceivable principle can it be suggested that this contribution must be utilised "for some purpose, which is beneficial to the majority of the students." After all, the University is one homogeneous whole, and the guardian of every student, who after matriculation becomes a student of the University, may rightly and legitimately be called upon to contribute, in however small a degree, to the cost of maintenance of the institution of which his ward desires to become a member. But, apart from this, it must be remembered that students of all grades are benefited by the existence of a strong Teaching University, which, amongst the various functions it has to perform, promotes a constant and an abundant supply of well-trained graduates in order to staff our schools and colleges. We cannot, in the field of education, draw arbitrary dividing lines and create self-supporting compartments. We need not labour this point further, because it has not been suggested by the Government that the addition of the extra three rupees, proposed to be charged once during the whole career of a boy, will prove to be too heavy a burden on his guardian.

We have already pointed out that the letter from the University did not set forth that the additional income would be spent on Post-Graduate Studies, much less "especially on the Arts side." The letter from the Government gives no indication why the assumption has been made that the money would be so applied. On the other hand, the Proceedings of the Senate dated the 4th December 1920 show that the resolution was adopted in connection with the Budget Estimates for 1919-20. Post-war conditions had led to considerable increase of expenses in the general department of the University, and in view of the narrow margin of the receipts over the expenditure, it was considered necessary to add to the income. The University is unquestionably not the only institution which has been hit hard by post-war economic conditions, and while almost every institution has taken steps to increase its revenue—not excluding the Government of Bengal—every effort on the part of the University to augment its income by small rises in the fees charged has met with nothing but obstruction. But even if it be assumed that a part of the additional receipts might have been spent on Post-Graduate Studies, surely that should not furnish a reasonable ground for complaint. We regret to note that the tone of the Government letter, taken as a whole, is likely to create the impression that the

opinion is favoured that the Post-Graduate Department is a wasteful, if not an undesirable luxury, and that the activities of the University in that direction should be hampered, if not restrained. We do not feel sure whether such a view is actually held by responsible members of the Government, though an affirmative inference to that effect may not improbably be drawn by many from the adverse decision of the matter under consideration; in any event, it is beyond doubt that the opinion is attributed to members of the Bengal Legislative Council and also of the public. We are gratified, however, to read that "the Government appreciates the enthusiasm with which the Post-Graduate departments have been developed" although we recognize that this can afford little encouragement to those, who have to carry on the work under great financial stringency and not unnaturally look forward to something more fruitful than a generous compliment.

We do not suggest that public opinion, when based upon an intelligent and impartial survey of all the facts, should be disregarded. We are unable at the same time to overlook that all the members of a popular assembly cannot, under existing conditions, be expected to form a correct estimate of the importance of a system of Post-Graduate instruction and research, which has been described by the University Commission as "setting new standards of method in University teaching." In these circumstances, we cannot but feel that it would be a real source of danger to the development of the highest type of University instruction and research, if the Government allowed themselves to be guided by the opinion expressed in a popular assembly on such a subject. With characteristic emphasis did Lord Curzon assert that "higher education ought not to be run by politicians or amateurs." It is, indeed, undeniable that the majority of the members of such a popular assembly in this country have never known a University except as a machine for the conduct of examinations. To them the University means nothing more than the final stage in a long and irksome series of examinations in which they were engaged from their boyhood—not that they should be blamed for their dreary experience, for it is only during recent years that the ideal of a Teaching and Research University has begun to materialise in Calcutta. It would not be a matter for surprise if men so situated, often without sufficient data at their disposal to enable them to form a sound and discriminating

judgment on academic matters, should be tempted to regard a University as an institution which simply furnishes an avenue to a profession or a calling.

Before we leave this topic, we cannot but take notice of the reference made in the Government letter to hostile public opinion on Post-Graduate Studies. We frankly admit that we do not appreciate why weight should be attached only to such criticism as is unfriendly to the University. Public opinion on the subject has by no means been uniform, and it is interesting to note that the most recent pronouncements in the Press have been markedly in favour of the continuance of Post-Graduate study and research in the University. If the present organisation has failed to appeal to the intelligence of the representatives of a section of the local Press or that of a number of unenlightened politicians, it has, at the same time, readily been recognised by critics, competent and impartial, as a national asset, having given "scope to intellectual freedom and stimulated a degree of intellectual curiosity and activity, unprecedented in the history of this, or any other Indian, University."

It is not in every instance we find that the Government have felt themselves fettered by the opinion expressed by the Bengal Legislative Council; it will be within the recollection of all the members of this University that the Bengal Government refused to sanction the proposal made by the Senate for the reduction of the Matriculation age-limit, notwithstanding the fact that the Council had expressed a decisive opinion in favour of even a more radical course, namely, the entire abolition of age restriction. These instances only serve to accentuate the paramount need for the direct representation of the Senate on the Bengal Legislative Council, and we are in entire agreement with the recommendation made on this subject by the Committee of the Senate, appointed on the 25th March 1922, whose report has already been approved by the Senate.

After a careful consideration of the grounds set out in the letter from the Government of Bengal, we see no escape from the conclusion that they do not justify the refusal of the proposal made by the Senate.

ASUTOSH MOOKERJEE
NILRATAN SIRCAR
J. R. BANERJEE
HIRALAL HALDAR
GEORGE HOWELLS

The 20th October, 1922

PRELIMINARY REPORT
OF THE
RECONSTRUCTION COMMITTEE
APPOINTED BY THE SENATE
ON
THE 26TH AUGUST, 1922

PRELIMINARY REPORT



We, the members of the Committee, appointed by the Senate on the 26th August, 1922, to consider a letter from the Secretary to the Government of Bengal, Education Department, No. 1643, dated the 9th August, 1922, on the subject of the reconstruction of the University, have the honour to submit the following preliminary report.

For convenience of reference, the letter is set out here :

No. 1643-Edn.

GOVERNMENT OF BENGAL.

EDUCATION DEPARTMENT.

Education Branch.

FROM

S. W. GOODE, Esq., I.C.S.,

SECRETARY TO THE GOVERNMENT OF BENGAL,

TO

THE REGISTRAR, UNIVERSITY OF CALCUTTA.

The Hon. Mr. P. C. Mitter,
C.I.E., Minister-in-charge.

Calcutta, the 9th August, 1922.

SIR,

I am directed to address you on a matter connected with University reconstruction. Action along the lines laid down in the University of Calcutta Commission Report has not been possible owing to financial conditions. This Government has made representations to the Government of India in the matter, and it is now necessary to undertake certain preliminary work in case circumstances enable Government to contemplate legislation in the near future. The opinion of the University is in this letter invited regarding the constitution that should be given to the Senate in such reconstruction.

2. Reference is invited in this connection to paragraphs 22 and 24 of Chapter 27 of the Commission's Report.

3. Reference is also invited to discussions in the Council of State and the Bengal Legislative Council. In the Council of State, the Hon'ble Mr. Bhurgre moved on February 23, 1921 that "this Council recommends to the Governor-General in Council to take early steps to introduce legislation in order to place the Universities of India on a more democratic basis." The Hon. Mr. Shafi in summing up the discussion pointed out that Provincial Legislative Councils had absolute power to deal with such matters and undertook to communicate to Local Governments the proceedings of the Council on the Resolution, which was thereupon withdrawn.

In the Bengal Legislative Council, Babu Jatindramohan Basu moved on 4th July, 1921, "that this Council recommends to the Government that steps be taken to effect the following changes in the Calcutta University, namely:

(a) that at least, 80 per cent. of the fellows of the University should be elected.

(b) that the registered graduates of the University should elect at least 60 per cent. of the fellows; and

(c) that the fee for enrolment on the list of registered graduates should be Rs. 2, and the annual subscription of registered graduates should be Rs. 2, and Babu Rishindranath Sarkar moved by way of amendment the recommendation that

(a) at least 80 per cent. of the fellows of the University should be elected.

(b) that all persons who have taken the degree of doctors and masters in any faculty and those who have graduated in any faculty not less than 7 years before the date of election shall be entitled to elect 60 per cent. of the fellows;

(c) that no fee whatever be charged from any graduate who is entitled to take part in such election.

In replying the Hon'ble Mr. P. C. Mitter informed the Council that the views of the House would receive the utmost consideration when the time for legislation came, and that in framing legislation he would be prepared to accept the democratic principle underlying the motion and amendment, that Government would take early steps to modify the constitution of the University in such a way as to make it thoroughly representative of public opinion in Bengal and of various interests which the University has to serve, that he was prepared to give an effective proportion of the representation to graduates, but in framing the Bill, must safeguard the various teaching interests and the different courses of study, *e.g.*, medical, engineering, etc. The resolution was then carried in this form, *viz.*, that "this Council recommends to Government that steps be taken to effect the following changes in the Calcutta University, namely:

(a) that at least 80 per cent. of the fellows of the University should be elected;

(b) that all persons who have taken the degrees of doctors and masters in any faculty not less than seven years before the date of election shall be entitled to elect 80 per cent. of the fellows;

(c) that no fee whatsoever be charged from any graduate who is entitled to take part in such election.

The Government of Bengal (Ministry of Education) will be pleased to receive the views of the Hon'ble the Vice-Chancellor and the Senate on the matter; as well as on the line of legislation which in their opinion should be adopted for introducing an elective basis in the University with due regard to proper academic interests at an early date.

A copy of each debate referred to is sent herewith. It is requested that they may be returned when done with.

I have etc., etc.,

J. N. RAY,

For Secretary to the Government of Bengal.

Before we deal with the questions in issue, it is necessary to invite attention to one point at the very outset. The letter states that clause (b) of the amendment moved by Babu Rishindra Nath Sarkar to the motion of Babu Jatindra Mohan Basu * was in the following terms :

"That all persons who have taken the degrees of Doctors and Masters in any Faculty and those who have graduated in any Faculty not less than seven years before the date of election shall be entitled to elect sixty per cent. of the Fellows."

The letter further states that clause (b) of the resolution as carried was in the following form :

"That all persons who have taken the degrees of Doctors and Masters in any Faculty not less than seven years before the date of election shall be entitled to elect eighty per cent. of the Fellows."

According to the letter, there is consequently a material variation between clause (b) of the amendment as moved and clause (b) of the resolution as carried. We originally proceeded to consider the matter on this assumption, which would make the electorate consist of a very select and limited number of persons, a position hardly consistent with "the democratic principle" underlying the motion and amendment. On examination, however, of the Official Report of the Bengal Legislative Council Proceedings, we find that clause (b) of the resolution as carried is not correctly reproduced in the letter and really stands as follows :

(b) "That all persons who have taken the degrees of Doctors and Masters in any Faculty and those who have graduated in any Faculty not less than seven years before the date of election shall be entitled to elect eighty per cent of the Fellows." (Proceedings, Vol. III, p. 187.)

This makes a substantial difference in the position; it implies that the electorate is to be made considerably wider

* In the Official Report of the Proceedings of the Bengal Legislative Council, the name of the mover is given as "Babu Jatindra Nath Basu."

than at present, for under section 7(2) of the Indian Universities Act, 1904, the electorate comprises only graduates of not less than ten years' standing, in addition to Doctors and Masters in any Faculty.

We assume that the term "Fellow" as used in the resolution has the sense which it bears in the Act of Incorporation, 1857, and the Indian Universities Act, 1904, namely, a member of the Senate which is the Body Corporate of the University. Under section 8 of the Act of Incorporation and Section 4 of the Indian Universities Act, the Senate, as the Body Corporate, consisting of the Chancellor, the Vice-Chancellor and the Fellows, whether *ex officio* or ordinary (elected and nominated), is charged with the entire management of and superintendence over the affairs, concerns and property of the University. The preamble to the Act of Incorporation and section 3 of the Indian Universities Act, read together, show that the University is required not only to conduct examinations but also to make provision for the instruction of students and to secure the promotion of study and research. The Senate of the University, under the law as it stands, is, consequently, entrusted with academic functions as well as administrative duties incident thereto. In our opinion, if the duties of the Senate continue in future to be what they are at the present moment, namely, of a dual character, a democratic principle should not be adopted in constituting that Body; as we shall presently show, however, that principle may be applied in the reconstruction of the University on a different plan. Neither the motion nor the amendment nor the resolution as accepted by the Council furnishes any indication as to the powers and duties of the Senate under the proposed constitution, and we are convinced that the question of revision of the constitution of the Body Corporate of the University cannot be usefully considered without determination of the functions intended to be assigned thereto. Apart, however, from the subject of the precise proportion of elected Fellows on the Senate, we dissent entirely from the view formulated in clause (c) of the resolution that "no fee whatsoever be charged from any graduate who is entitled to take part in such election." The Indian Universities Act makes the payment of an annual fee a condition precedent to the exercise of the franchise, and we see no reason why this principle should be abandoned. On the other hand, we maintain that every graduate may be

expected to take an interest in the welfare of his University, and it is the duty of successful graduates materially to help their *alma mater* in the performance of her work.

Although we are emphatically of opinion that the Senate should not be reconstituted on the lines suggested in the resolution or any variation thereof, we are equally convinced that for the orderly and progressive development of the University as a powerful factor in the life of the nation, it is essential that the University should be brought into intimate touch with public opinion to a much larger extent than is contemplated by or has been found practicable under the existing constitution. This problem is of some complexity and was fully explored by the Sadler Commission. The Commission recommended that the University should be reconstituted on the pattern of the modern British Universities and should possess what they termed a "Court" and an "Academic Council." We are not now concerned with the question of appropriate names of the proposed new bodies; what is of vital importance is the fundamental distinction between their functions.

With regard to the Court of the University, the report of the Sadler Commission makes the following recommendation :

"It is, in our judgment, essential that the Court of the University should be so constituted as to represent every important element in the public opinion of the areas specially served by the University, and every kind of expert judgment whose criticisms on the University policy would be of value. A body designed to serve such a purpose should be constituted in a different way from the existing Senate. It should, in our judgment, consist in part of *ex-officio* members, and in part, of elected members, the nominated element being reduced to subordinate proportions." (Report, Vol. IV, p. 384, para. 26.)

The Commissioners then proceed to make detailed suggestions which, they are careful to state, represent not so much precise and definite proposals as an indication of the kind of body they desire to see constituted, in view of the fact that "the most useful functions of the Court would be those of watchfulness and criticism and of keeping the University in touch with the movements of public opinion on educational questions." (Vol. IV, p. 387.)

With regard to the Academic Council, the report of the Sadler Commission makes the following recommendation :

"The most important of the changes which we suggest in the structure of the University, is the creation of a supreme Academic Body, whose duty it will be to direct and review all the academic work of the University, to be responsible for the standards of attainment represented by its degrees,

and to initiate proposals for academic reforms and advances.....Such a body must not be too large ; otherwise it will become unworkable and its discussions will be lengthy and unpractical.....On the other hand, the supreme academic body cannot be small, because it must include representatives of all the chief subjects of study in the University, technical and professional as well as literary and scientific ; because it must include, further, representatives of the colleges, at any rate, of those which form constituent elements in the Teaching University of Calcutta ; and finally, because it ought to include the most distinguished teachers whose services the University enjoys. Unless it includes all these elements, its judgment will not carry the weight which it ought to carry." (Report Vol. IV, pp. 394-395.)

The Commissioners then proceed to make detailed suggestions as to the proper constitution of such an academic body and recommend that its character, functions and powers should be defined in Statutes and Ordinances.

We are of opinion that the scheme formulated by the Commission is, in its main features as indicated above, sound, and we recommend that a serious effort should be made to reconstitute the University on these lines. It would, in our opinion, be a fatal mistake to attempt to reconstitute the University with *one* supreme governing body which is to satisfy the requirements of the democratic principle and is also to discharge the academic functions of a great Teaching and Examining University.

In view of the opinion expressed above, we do not hesitate to record that we have read with much concern the following passage which occurs in the first paragraph of the letter from the Government, now under consideration : "Action along the lines laid down in the University of Calcutta Commission Report has not been possible owing to financial conditions." We appreciate the difficulties of the Government, but in the highest interests of educational progress, we trust that this does not imply that the report of the Sadler Commission has been rejected. Here it is necessary to emphasise the action which has already been taken in this respect by the Senate. On the 3rd September, 1921, the following resolution was unanimously adopted by the Senate :

"That as no action has been taken by the Government of India on the basis of the resolution of the Senate dated 28th February, 1920 (which was communicated to the Government of India in this office letter* No. 624-G, dated 31st March, 1920), the Senate do proceed to appoint a committee of seven members, namely, four members to be nominated by the Senate and three members to be nominated by the Government of Bengal, to investigate

* The letter to the Government of India is printed in the appendix.

the financial details of the proposed scheme for the reconstruction of the University, as indicated in the letter above mentioned."

On the 23rd September, 1921, the resolution was forwarded to the Government of Bengal with the following covering letter.

From the Registrar, Calcutta University, to the Secretary to the Government of Bengal, Education Department, No. G. 54, dated the 23rd September, 1921.

I am directed to forward the following resolution which was unanimously adopted by the Senate on the 3rd September last :

"That as no action has been taken by the Government of India on the basis of the resolution of the Senate, dated 28th February, 1920, (which was communicated to the Government of India in this office letter* No. 624-G dated 31st March, 1920), the Senate do proceed to appoint a Committee of seven members, namely, four members to be nominated by the Senate and three members to be nominated by the Government of Bengal, to investigate the financial details of the proposed scheme for the reconstruction of the University, as indicated in the letter above mentioned."

The Government of Bengal are no doubt aware that after the publication of the report of the Calcutta University Commission, the Government of India requested the Senate to consider the proposals made by the Commission and to express their views thereon. The recommendations of the Commission were elaborately reviewed by the Council of Post-Graduate Teaching in Arts, by the Council of Post-Graduate Teaching in Science, by a Committee of the Senate, and finally by the Senate itself. The observations of the Senate were ultimately forwarded to the Government of India. There was one fundamental matter which was much emphasised in the course of all these discussions, namely, the financial aspect of the scheme of reconstruction outlined by the Commission. The Senate was unanimously of opinion that reconstruction should not be undertaken unless the financial aspect of the scheme had been investigated and the requisite funds guaranteed. With this object in view, the Senate, on the recommendation of the Syndicate, dated 6th February, 1920, adopted the following resolution on the 28th February, 1920 :

"That a letter be addressed to the Government of India, emphasising the necessity for

(1) an immediate scrutiny of the financial aspect of the proposed scheme of reconstruction of University and Secondary education ;

(2) an accurate ascertainment of the sums, initial and recurring, which will be needed for the purpose ;

(3) a definite assurance that the requisite funds will be available for at least ten years ;

and suggesting that the details be worked out by a small committee appointed by the Government of India and composed of

(i) a representative of the Government of India ;

* The letter to the Government of India is printed in the appendix.

- (ii) a representative of the Government of Bengal ;
- (iii) three representatives nominated by the Senate."

A letter was accordingly addressed to the Government of India on the 31st March, 1920, which set out in full the reasons for the action recommended by the Senate. A printed copy of this letter is enclosed for information. No reply was received from the Government of India on the subject mentioned. Since then, the Government of India have ceased to have direct connection with the University, and under altered conditions, it became necessary for the University authorities to consider what further steps should be taken in the matter. On the 8th July, 1921, the Syndicate unanimously adopted the resolution mentioned in the first paragraph of this letter which is now being forwarded for consideration of the Government of Bengal. The recommendation of the Syndicate was placed before the Senate for consideration on the 6th August, 1921, but could not be discussed as other items of business occupied considerable time. The recommendation of the Sydicate thereupon came up before the Senate for consideration on the 3rd September, 1921, when upon a motion of Rev. Dr. G. Howells it was unanimously approved.

It is not necessary to reiterate the importance of a full enquiry into the financial aspect of the scheme of reform outlined by the Commission. It is indisputable that requisite funds must be guaranteed before the scheme of reconstruction of such a magnitude as has been outlined by the Commission could be taken in hand, with or without modifications.

We have made enquiries, and we learn that no reply has yet been received from the Government of Bengal. We have no reason to believe that the Government do not desire to co-operate with the University in the investigation of the financial aspect of the proposals of the Sadler Commission, and of the financial arrangements which may be necessary in order to give effect to the main recommendations with or without alterations. It is wellknown that in the case of other Universities, such as Allahabad, Lucknow, Delhi, Rangoon and Aligarh, it has been found feasible to frame constitutions, suited to their respective needs, on the basis of the report of the Calcutta University Commission; considerable progress has also been made on the same lines in Madras. We recommend that the Government of Bengal be again invited to co-operate with the University on the lines indicated in the resolution of the Senate dated the 3rd September, 1921.

We propose to submit another report after we have examined, in further detail, the questions which must arise in connection with the reconstitution of the University on the lines of the report of the Sadler Commission. One of those questions is the relation between the Government and the University, which is considered at length in the report of the Commission and raises issues of great gravity and

complexity. It is manifest that an investigation of this character cannot be hurried and should not be perfunctorily performed. The exact scope of the reference made by the Government in the letter under consideration, is, however, not clear. In paragraph 1 of the letter we find the following passage, after the statement that action along the lines laid down in the University of Calcutta Commission Report has not been possible owing to financial conditions :

"It is now necessary to undertake certain preliminary work in case circumstances enable Government to contemplate legislation in the near future. The opinion of the University is in this letter invited regarding the constitution that should be given to the Senate in such reconstruction."

Paragraph 2 of the letter then invites reference to paragraphs 22 and 24 of Chapter XXVII of the Commission's report. No mention, it will be observed, is made of the scheme framed by the Commission for the reconstruction of the University and outlined in Chapter XXXVII of their Report ; the reference is limited to two isolated passages from the historical portion of the report (Chapter XXVII, paragraphs 22 and 24) which touch upon the question of the proportion of elected Fellows on the Senate. We trust that this does not imply that the Government have already rejected the scheme framed by the Commission (a Court and an Academic Body) and have decided upon the maintenance of *one* body for the discharge of both academic and administrative functions. We find, on the other hand, the following passage in a subsequent portion of the letter :

"The Government of Bengal (Ministry of Education) will be pleased to receive the views of the Hon'ble the Vice-Chancellor and the Senate on this matter ; as well as on the line of legislation which, in their opinion, should be adopted for introducing an elective basis in the University with due regard to proper academic interests at an early date."

This, it will be noticed, is phrased in more comprehensive terms, as the expression used is, not "the Senate" but "the University." Taking the letter as a whole, the construction is, we think, fairly permissible that the Government desire to obtain the opinion of the University on the entire question of reconstruction and not merely upon the very limited point raised in the resolution adopted by the Council.

It will be observed that the Government of Bengal in their letter under consideration express a desire to receive

the views of the Senate at an early date. Since then a reminder has been received, dated the 12th October, 1922. In this connection, it seems desirable that the relevant facts should be placed on record. The resolution was adopted by the Bengal Legislative Council on the 5th July, 1921. It was not till the 9th August, 1922, that the Government of Bengal addressed the University on the subject. Meanwhile, on the 23rd September, 1921, the University had written to the Government of Bengal, requesting their co-operation in the formation of a Committee for investigation of the financial details such as must be undertaken in connection with any practical scheme, really intended for educational reform. The letter of the 9th August, 1922, makes no reference at all to the financial aspect of any possible scheme of reconstruction. The letter was received on the 10th August, 1922, and was considered by the Syndicate on the day following. The Syndicate directed the letter to be placed before the Senate, as the views of the Senate were asked for on the subject. The Senate met on the 26th August, when they appointed the present Committee to deal with the matter. We regret that the time of the year when the University was called upon to deal with a question of such gravity was not quite opportune, in as much as during the annual holidays many members of the Senate are usually absent from town, and it is impracticable to secure their attendance at meetings. Meanwhile, on the 12th October, 1922, in the middle of the holidays, a reminder was issued from Darjeeling that the views of the Senate might be forwarded at an early date. We cannot appreciate the occasion for such urgency, in view of the previous delay in taking action on the resolution passed in the Legislative Council in July, 1921, and also in view of the statement in the first paragraph of the letter, dated the 9th August, 1922, to the effect that "*it is now necessary to undertake certain preliminary work in case circumstances enable Government to contemplate legislation in the near future.*" If this was the position so recently as the 9th August, 1922, it seems necessary to enquire, what has happened in the interval. We are bound to add that as a Committee, we have no official information as to what has happened in the meantime, but it has been brought to our notice that a Bill has already been prepared embodying provisions which differ in vital respects from the proposals of the Sadler Commission.

The situation, in our opinion, is calculated to give rise to deep anxiety. It is well-known that once a legislative measure has received the approval of the Government, as such, even at what is called a preliminary stage, it is hardly useful to make efforts to secure a change of policy. There would be obvious danger to the cause of education, were Government to proceed with a measure for the reconstruction of this University on a plan which has not been thoroughly examined and criticised by those whose experience specially qualifies them to advise on the matters in issue; the danger would be aggravated if the measure departed materially from the recommendations of the Sadler Commission, which were based upon a comprehensive survey of the entire situation. In these circumstances, we venture to think that it would be prudent on the part of the Senate, to endeavour to arrange without delay, for interviews by small deputations with the various authorities concerned in order to explain the situation fully to them from the point of view of the University.

ASUTOSH MOOKERJEE.
 NIL RATAN SIRCAR.
 HERAMBACHANDRA MAITRA.
 GIRISCHANDRA BOSE.
 P. C. RAY.
 GEORGE HOWELLS.
 T. H. RICHARDSON.
 W. S. URQUHART.
 R. N. GILCHRIST.
 ALEX. R. MURRAY.

The 3rd November, 1922.

APPENDIX

From the Registrar, Calcutta University, to the Secretary, Government of India, Education Department, No. 624 G., dated the 31st March, 1920.

I am directed by the Hon'ble the Vice-Chancellor and the Syndicate to acknowledge receipt of a copy of a Resolution of the Government of India, dated the 27th January, 1920, on the Report of the Calcutta University Commission, forwarded by you through His Excellency the Rector. The Resolution has been placed before the Senate by order of the Syndicate, and the Senate have directed that a preliminary letter be addressed to the Government of India pending the consideration of the questions raised by the Resolution.

It is generally felt by the Members of the Senate that the Resolution mentioned has created a situation of great gravity. The Resolution contemplates a departure from many of the fundamental recommendations made by the Commission which are treated as if they were of minor importance. Besides this, the whole tone of the Resolution is by no means re-assuring, as far-reaching changes, which are described by the commissioners themselves as revolutionary in character, are apparently intended to be carried through expeditiously, without adequate safeguards that in the process of rapid reconstruction the facilities for high education will not be seriously impaired. The Senate as also the Councils of Post-Graduate Teaching in Arts and Science are carefully scrutinising these points, but the Senate have come to the conclusion that pending the formulation of their views in detail, the attention of the Government of India must be forthwith drawn to one fundamental matter which, it may be said without exaggeration, is ignored in the Resolution.

The report of the Commissioners makes it abundantly clear that the scheme of reform outlined by them cannot possibly be put into operation, much less carried into execution without adequate provision for funds. Indeed, the Commissioners devote one entire chapter (Chapter LI) covering forty-five closely printed pages to the financial aspects of their proposals. The Resolution in question is practically silent upon this the root-problem. The Commissioners have pointed out in various places of their report that educational conditions are not satisfactory because sufficient money

has not hitherto been spent for educational purposes. The estimates they have made in Chapter LI have no pretension to be either exhaustive or accurate. But what is equally important is that during the twelve months that have elapsed since the Report was signed, conditions have so rapidly changed that even if these estimates were accurate when they were made, they would require alteration, in some places substantial alteration, at the present time. In the opinion of the Senate, it would be a grave error to launch a scheme of such complexity and magnitude without adequate financial guaranters. This view may be illustrated by reference to a few details which are in no sense intended to be exhaustive.

The Commissioners have recommended that the existing Colleges should be broken up, each into two divisions ; what now constitutes the first and second-year classes will (with or without school classes attached) be transformed into Intermediate Colleges, while the present third and fourth-year classes will become constituent colleges. The Senate do not, at this stage, wish to pronounce an opinion on the question, whether this scheme is on academic grounds desirable, and whether such partition may not mean in many instances the abolition of the third and fourth-year classes. The Senate wish now only to lay stress on the fact that the Commissioners themselves have pointed out that this will completely dislocate the finances of every existing Institution, and they have furnished estimates, necessarily very rough, of the sums which will be required to effect the transformation. It is inconceivable, in the opinion of the Senate, that any responsible public authority (unless it intends to destroy suddenly the present system) can embark upon such reform, without investigation of the funds which will be required and which must be supplied before the change can be accomplished. It is important to observe that this proposal of the Commissioners goes to the very root of the matter, because none of the existing institutions can attain the status of a constituent college, unless the present first and second-year classes have been completely separated from the third and fourth-year classes. It is equally clear that unless there are constituent colleges, the scheme developed by the Commissioners cannot be brought into existence.

The difficulty of the situation may be illustrated by reference to one concrete case, namely, that of the Presidency College. The Presidency College is an institution owned by the State. If it is to be divided into an Intermediate College and a Constituent College, a new building, a new laboratory and a new library and other equipments must be provided for the Intermediate College ; it seems probable that considerable additions also will have to be made to the staff, as according to the plan of the Commissioners, the staff of an Intermediate College is to have no connection whatever with that of a constituent College. Consequently, before this transformation can be effected, an estimate must be prepared—with some approach to accuracy—with reference to the cost of acquisition of land, the cost of erection of new buildings and the cost of equipment of a new Library and a new Laboratory as also the additional recurring expenditure due to the creation of new teaching posts. Such expenditure will most probably require the sanction of the Secretary :

of State. It cannot, in this connection, be overlooked that even within the last year, after the Commissioners had submitted their report, the cost of land in the neighbourhood of College Square as also in various other parts of Calcutta and the suburbs has increased to a phenomenal extent from various causes, amongst others, the operations of the Calcutta Improvement Trust. It would thus be obviously disastrous, if the scheme were first brought into operation and then it was discovered that the necessary funds were not available.

But what has been mentioned with regard to the Presidency College applies to other Institutions in at least an equal degree. The Resolution contemplates the speedy extinction of what are called temporarily affiliated colleges, but it does not appear to have been realised that there is not, within the jurisdiction of the University, a single college at the present time which fulfils the requirements prescribed by the Commissioners for a constituent College, and if the destruction of the temporarily affiliated colleges is deemed so desirable an object, that fate is likely to await the large majority, if not all, the existing colleges, whether maintained by the State or by missionary organisations or by other private agencies. It is, however, not the colleges alone whose needs require consideration. The Commissioners contemplate a central organisation in the new teaching University at Calcutta with adequate buildings for lecture halls, libraries, reading rooms and laboratories, and they have furnished some indication of the sums which will approximately be required for this purpose. There are also the Colleges in the Moffassil which will stand in need of considerable outlay. These and many other heads of immediate expenditure are tabulated at page 293 of Vol. V of the Report. The Senate have no desire to conceal from Government the fact that they have read the resolution, not merely with keen disappointment but with grave concern, as no reference is made therein to the financial aspect of the reforms, even in so far as they have received their provisional approval; and it is apparently assumed that the reforms may be initiated without any reference to the question whether funds will or will not be forthcoming. In the opinion of the Senate, it would be detrimental to the best interests of education, if such a step were taken without financial guarantees, not merely because the existing system would thereby almost certainly be dislocated without any compensating advantages, but also because the sympathies of all persons interested in the progress of education, whose co-operation, according to the Commissioners, is vitally necessary for the success of the new scheme, would be completely alienated therefrom. Such a result as this would unquestionably be lamentable from every conceivable point of view. The Senate further desire to emphasize that mere re-organisation of the administrative machinery and the creation of highly-paid administrative posts would be futile for the purpose of the reforms. What is most urgently needed is adequate funds for the improvement of the teaching organisation in the University, in the Colleges, and in the Schools, and the Senate are most emphatically of opinion that it would be a great blunder to spend money on salaried Vice-Chancellors, Pro-Vice-Chancellors, Inspectors and other officers, if the Institutions where the students are trained, continue to be starved or half starved from lack of funds.

In view of all these circumstances, the Senate have adopted the following resolution which they have asked me to place before the Government for sympathetic consideration and for approval :

"That a letter be addressed to the Government of India, emphasising a necessity for—

(1) an immediate scrutiny of the financial aspect of the proposed scheme reconstruction of University and Secondary education ;

(2) an accurate ascertainment of the sums, initial and recurring, which will be needed for the purpose ;

(3) a definite assurance that the requisite funds will be available for at least ten years ; and suggesting that the details be worked out by a small committee appointed by the Government of India, and composed of

(i) a representative of the Government of India ;

(ii) a representative of the Government of Bengal ;

(iii) three representatives nominated by the Senate."

The reasons already outlined so abundantly support these proposals that detailed justification need not be attempted with regard to each clause of the motion adopted by the Senate. The first and second clauses are manifestly dictated by ordinary prudence. No sane individual, much less any respectable public authority, would initiate an extensive scheme of reconstruction, however desirable, unless the necessary funds were available. The attempt to reconstruct without adequate funds, the entire educational machinery of a presidency, would be as open to reproach, if not ridicule, as the endeavour of an individual who, without ascertaining whether he has sufficient money for the purpose, embarks upon the demolition of his ancestral dwelling house and the erection of an expensive structure, which, however ideal, proves in the end to be beyond his limited means. But not only do the Senate insist that the cost of reconstruction of University and Secondary education, both initial and recurring, should be forthwith ascertained with some approach to accuracy, they further desire that the sum so determined to be requisite should be guaranteed for a period of at least ten years. The Senate have directed me to lay the strongest possible emphasis on this request. The Senate are clearly of opinion that the realisation of a reform of this description should not be made dependent, from year to year, upon the chance of the will of an individual or of a Government. The Commissioners have stated out in unmistakable terms that the work of reconstruction must be spread over many years, and it is indubitable that throughout such a period there must be a steady and continuous supply of the requisite funds. In this connection, the Senate cannot overlook that the financial position of the Government, both Imperial and Provincial, is in a state of transition in view of the reforms which will come into operation from the commencement of the next year. The financial relations between the Imperial and Provincial Governments will shortly be readjusted. Education, as is understood, will be a transferred subject and the responsibility will be cast upon the Minister (and consequently upon the Legislative Council) to provide the funds required for the development and reconstruction of education in all its grades. No one will venture seriously to suggest that it would be a blunder of the utmost gravity to launch a

scheme of reform of University and Secondary education at this critical juncture in the history of the country without previously ascertaining, first, the minimum sum which will be required in the way of capital as well as recurring expenditure to allow the scheme to be fairly launched, and, secondly, that the sum determined on investigation to be absolutely essential will be forthcoming for a term of years. The Senate do not consider that ten years is by any means too long a period for this purpose. As an illustration of what has happened in the past and what is likely to happen again if schemes of reform are initiated without adequate funds, reference may be made to the chapters on Secondary Education in the Report of the Commission. It is pointed out by the Commissioners that shortly after the enactment of the Indian Universities Act, 1904, steps were taken to improve the condition of Secondary education in Bengal. A committee was appointed by Government to prepare detailed plans for the improvement of Schools by means of subventions from the public funds. But although a dozen years have elapsed since the Committee submitted their recommendations the proposed scheme has not been carried into execution. There can be little doubt that if the problem of secondary education had been seriously tackled and funds provided on a generous scale for its improvement, the educational outlook at the present moment might have been fundamentally different.

There is one other question which demands more than a passing reference. Under the existing constitution, the Government of India exercises authority over the University which controls the Colleges as well as the Schools. The Commissioners recommend that the Schools as also the Intermediate Colleges should be placed under a Board of Secondary and Intermediate Education, while the Degree Colleges will be placed under the new University. The Board, in each administrative area, will be under the Local Government concerned, while the reconstituted University will be under the Government of Bengal with His Excellency the Governor as its Chancellor. The Resolution contemplates that legislation should be undertaken, at present, by the Government of India, only in respect of that fragment of the present University which will become the University of the future, while the other fragment which is now concerned with the Schools and Intermediate Colleges will be left to be treated by the Local Government in its discretion. The dangers involved in such piece-meal reconstitution by two distinct authorities, namely, the present Government of India and the future Government of Bengal, are too manifest to require elaboration. The unwisdom of such a course can well be compared with that of the person who gets the superstructure of an edifice reconstructed first by one architect, and leaves the basement to be reconstructed later by another architect. But the proposal apparently favoured in the Resolution involves a danger of much greater magnitude. The Report of the Commissioners discloses that for more than a dozen years a determined and persistent effort has been made in some quarters to take away the schools from the control of a statutory though semi-official body like the University and to place them under departmental official control. That effort has hitherto been signally unsuccessful in this Presidency, but it seems, is now to be revived on a more comprehensive scale than before. The Commissioners have by a majority of five against two (neither of whom had any experience of local conditions) condemned in the most

emphatic language imaginable, the proposal to place the Schools under the Department ; they have, on the other hand, recommended the creation of a new, regularly constituted authority with well-defined executive and financial powers, to supervise the Schools and the Intermediate Colleges. The Resolution brushes away these proposals and favours the highly objectionable view that the proposed new authority should have no statutory position, so that it may be created and consequently abolished or modified in constitution and personnel, by a Resolution of the Executive Government. There can be no room for controversy that this reactionary plan is in substance an attempt to departmentalise not merely the Schools but also the Intermediate Colleges. The extreme gravity of the danger to public interests involved in a proposal of this character cannot be overestimated, and the Senate will deal fully, later on, with all the implications of such a scheme ; they now limit themselves to the financial aspect alone of the proposals for piece-meal reconstruction. The questions which necessarily arise may be briefly stated. Should the Government of India undertake legislation for construction of the future University, and, without financial guarantees, make over the new University to the Government of Bengal, the very moment the legislation is completed ? Should the Government of India, again, undertake such legislation, and, at the same time, leave to another Government and to the uncertainty of the future, action which is vitally necessary for the improvement of Secondary and Intermediate education ? Should not the whole problem of reconstruction be solved by *one* Government, and that the new Government of Bengal which will be inaugurated next year ? If not, will the first Minister in charge of Education, in the new Government of Bengal, be in a position to finance the scheme manufactured in advance for his benefit by the Government of India ? Can the funds necessary for the proposed reconstruction of University, Intermediate and Secondary education, be provided out of the existing revenues, or, will it be necessary for the Minister to impose a new tax for all grades of education ? The Senate feel confident that none of these pertinent questions can be satisfactorily grappled with, unless the financial aspect of the reforms has been closely scrutinised as proposed by them.

The Senate finally direct me to emphasise that they do not desire that reform should be needlessly impeded, but they deprecate reform on paper and emphatically object to a mere reorganisation of the administrative machinery with consequent increase of expenditure thereon. They are most anxious to co-operate with the Government in the accomplishment of a reasonable scheme of reform which will improve the quality of education without restricting the facilities for education ; they want more education and better education. But they feel convinced that this end can be achieved, only if sufficient funds are provided ; and, obviously, before funds can be provided, the sum requisite must be determined with some approach to precision. In their opinion, the only feasible method is an investigation of the financial aspect of the proposed scheme by a Committee so constituted that it may command the confidence both of the Government and of the public. They accordingly recommend that a Committee of five should be appointed by the Government of India composed of a representative of that Government, a representative of the Government of Bengal, and three representatives nominated by the Senate. The Senate feel confident

that if the Government be willing to grant this request for co-operation, they will be able to choose as their representatives men who are intimately acquainted with the manifold phases of the scheme of reform outlined by the Commissioners, and are at the same time conversant with the details of University College and School administration ; it is men of this type alone who can form a safe and satisfactory judgment upon the difficult and complex problem of transformation of the old order into the new.





